P
Med
N

Vol. CIX DECEMBER, 1915 Number 12

NASHVILLE JOURNAL
OF
MEDICINE AND SURGERY

Established 1851

CHARLES S. BRIGGS, A. M., M. D., Editor and Proprietor
E. S. McKEE, M. D., Cincinnati, Associate Editor
W. T. BRIGGS, M. D., Associate Editor

PUBLISHED MONTHLY - - $1.00 a Year in Advance

Entered at the Post-Office at Nashville, Tenn., as Second-Class Matter

Williams Ptg. Co,, Printers, 156 Fourth Avenue, North, Nashville, Tenn.

Tongaline

Does not cause
the injurious effects on the stomach,
or the other disturbances of
salicylism produced by the
sodium salicylate made from coal-tar.

Furthermore the uniformly good results from Tongaline are secured largely by the thorough and constant absorption of the salicylic acid it contains because this is made from the natural oil of wintergreen.

Samples by Express prepaid – Mellier Drug Company. St. Louis.

Contents for December, 1915

ORIGINAL COMMUNICATIONS.

Salpingitis 530

SELECTED ARTICLES.

Some of the Automatic Balances in the Human Body..... 532

EXTRACTS FROM HOME AND FOREIGN JOURNALS.

SURGICAL.

Extraction of Bullets from the Bladder by the Natural Channels..... 542
Two Cases of Swallowed False Dentures Treated with Apomorphine.. 543
A New Antiseptic..... 543
Strangulated Hernia—Removal of Appendix from Hernial Sac..... 544
Prophylaxis of Joint Conditions in Childhood..... 544
Disinfection of the Hands and Abdominal Skin Before Operation.... 545
Ethyl Chloride as a General Anesthetic..... 545

MEDICAL.

The Occurrence of Miliary Tuberculosis of the Liver in the Course of Pulmonary Tuberculosis 546
Spartein Sulphate 546
Wart Cures 547
Differential Signs of Hysterical and Organic Affections of the Nervous System 548

OBSTETRICAL.

The Pregnancy Clinic and the Midwife. A Comparison..... 550
Twilight Sleep 551
The Management of Infants at the Breast..... 552
Care Required in Obstetrical Cases..... 553

EDITORIAL 555

REVIEWS AND BOOK NOTICES..... 563

PUBLISHER'S DEPARTMENT 566

LISTERINE

A safe, non-poisonous, unirritating antiseptic solution

LISTERINE embodies a two-fold antiseptic effect, in that after the evaporation of its volatile constituents —thyme, eucalyptus, mentha, gaultheria and ethyl alcohol—a film of boracic and benzoic acids remains upon the surface to which Listerine has been applied, affording more prolonged antiseptic protection.

LISTERINE is a trustworthy surgical dressing; it has no injurious effect upon the tissues in which the healing process is going on.

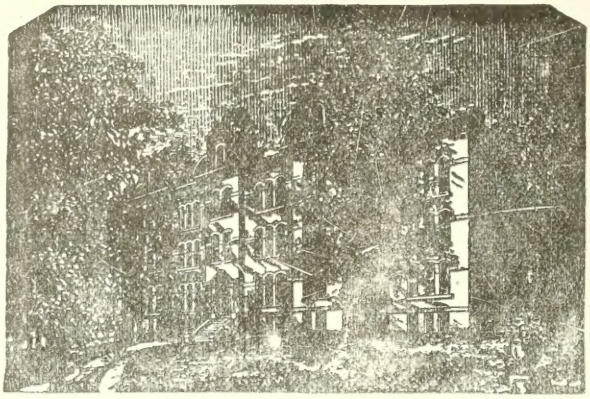
LISTERINE in proper dilution is useful in the treatment of abnormal conditions of the mucosa and forms a suitable wash, gargle or douche in catarrhal conditions of the nose and throat.

LISTERINE in teaspoonful doses will often afford relief in fermentative dyspepsia and is largely prescribed, with excellent results, in the various forms of diarrhoea occurring in infants and adults.

LISTERINE literature, including special pamphlets upon *Disorders of Digestion* and *Respiratory Diseases,* may be had, by physicians, upon application to

Lambert Pharmacal Company

2101 Locust Street **St. Louis, Mo.**



Beechhurst Sanitarium

Louisville, Ky.

H. B. SCOTT, A.M., M.D. - - Medical Supt.
E. P. THOMAS - - - - Business Manager

A Sanitarium for the Treatment of Mild Mental Diseases, Drug Addictions and Alcholism.

The main building at Beechhurst is commodious, and has been remodeled and newly furnished. Detached apartments for special cases, besides arrangements in both male and female departments for classification of patients. It is heated by steam, lighted by electricity, and water supplied by city waterworks.

Grounds elevated, ample, and beautifully wooded. Location retired, although within half a mile of East Louisville Station, and four hundred yards from the street car line.

Treatment: Such as is ordinarily employed in proper institutions of similar character.

Long Distance Telephone, East, 257-A. Home Telephone, 3565.

SANMETTO FOR GENITO-URINARY DISEASES.

A Soothing Healer to Inflamed Conditions.
A Tonic-Stimulant to the Reproductive System.

Specially Valuable in Prostatic Troubles of Old Men—Irritable Bladder—Enuresis—Cystitis—Urethritis—Pre-Senility.

SOOTHING—RELIEVING—RESTORING.

DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO., NEW YORK.

THE EASY BODY REST

SOLID COMFORT.

Get one now. You need it for sitting or lying in bed. A solid unbreakable steel frame attachable to any metal bed. Change from flat to reclining or sitting posture instant and easy. Makes reading, writing or eating in bed a pure pleasure.

In sickness a Godsend to patient, doctor and nurses or attendants in the sick room. A boon to nursing mothers. Better than medicine for convalescents. Changing position relieves bed weariness, nervousness, strain, bed sores. No shifting or bunching of hot pillows. Cool, hygenic. Drops out of way and out of sight when not needed. For present comfort and possible emergency should be in every home.

Used in all hospitals, sanitariums and in 100,000 homes. Highly recommended by doctors and nurses everywhere. Price only $5. F. O. B. Chicago. Money back if not perfectly satisfied. Order today.

Illustrated Booklet Free.

OVER 65 YEARS' EXPERIENCE

PATENTS

TRADE MARKS
DESIGNS
COPYRIGHTS &C.

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. HANDBOOK on Patents sent free. Oldest agency for securing patents.

Patents taken through Munn & Co. receive *special notice*, without charge, in the

Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, $3 a year; four months, $1. Sold by all newsdealers.

MUNN & Co. 361 Broadway, **New York**
Branch Office, 625 F St., Washington, D. C.

K & O. DOUCHE FOR THE APPLICATION OF GLYCO-THYMOLINE TO THE NASAL CAVITIES

GLYCO-THYMOLINE FOR CATARRHAL CONDITIONS

Nasal, Throat
Intestinal
Stomach, Rectal
and Utero-Vaginal

KRESS & OWEN COMPANY

361-363 PEARL ST. NEW YORK

TULANE UNIVERSITY
OF LOUISIANA

MEDICAL DEPARTMENT (Under-Graduate)

77th Annual Session opens October 1, 1910. Four years' course; unexcelled laboratory and clinical facilities. Dormatory for medical students in first two years. Over 70 teachers.

DEPARTMENT OF PHARMACY

Established in 1838. Two graded course of 32 weeks for degree of Ph.C. Food and drug analysis for students prepared. Women admitted on same terms as men.

OPPORTUNITIES FOR CLINICAL INSTRUCTION UNSURPASSED BY ANY MEDICAL COLLEG IN THE UNITED STATES. FEES AVERAGE ABOUT $1.50 PER SESSION. -:- -:- -:- -:-

FOR CATALOGS ADDRESS

DR. ISADORE DYER, Dean

P. O. Drawer 261 New Orleans, La.

ST. JOSEPHS MATERNITY

Cor. Magazine and Race Sts., New Orleans, La.

This institution is prepared to accommodate married patients as well as those desiring strict privacy during pregnancy and confinement.

Private rooms and ward service. Special confinement and operating-room, and all other modern facilities for attention to maternity patients.

For further particulars address SISTERS OF CHARITY,
Cor. Magazine and Race Sts.,

J. J. RYAN, M. D. Physician in Charge. New Orleans, La.

Kramer's $5.00 Book of Trade Secrets

Reduced to $1.00 While They Last. Only Few Copies Left.

The price of Kramer's Book of Valuable Formulas, Recipes, Trade Secrets, Processes," etc., has been reduced from $5.00 to $1.25 for a short time. Order the book while you can get it. "Its" a spring tonic for any business. Did "go" into every State and Canada, besides several foreign countries this year. "It" makes business "go" and brings in the $ $ $ to you. Endorsed by all manufacturers.

THERE IS ONLY ONE KRAMER'S BOOK

"Kramer's Book of Trade Secrets" was written by Adolph Kramer, Analytical Chemist, assisted by other experts. Mr. Kramer was educated in Germany's most noted Technical schools, and was for over 30 years connected with the large manufacturing concerns in Germany and the U. S. It is the most complete thing ever written on flavoring Extracts, giving formulas that have never been published, costing from 30c per gallon and wholesaling for $3.50 per gal. up. It contains hundreds of other formulas which never have appeared in print, where the cost has ranged for each formula to sets of formulas, from $5.00 to $100.00. Every person who is out of employment can make more out of this book than a person in ordinary business can on a capital of $10,000.

"KRAMER ON ICE CREAM" is a booklet which has just been issued, telling how to make a prime ICE CREAM for 10c gal., absolutely pure and will pass in any food law State, besides giving a number of other formulas and information. Can't tell all about it here. Regular price $2 50, now $1.00 or both books $2.00. Act quick.

SIOUX PUBLISHING COMPANY, Desk U. Sutherland, Iowa.

DO BUSINESS BY MAIL

Start with accurate lists of names we furnish—build solidly. Choose from the following or any others desired.

APRON MFRS.	DRUGGISTS	DOCTORS
CHEESE BOX MFRS.	AUTO OWNERS	AXLE GREESE MFRS.
SHOE RETAILERS	WEALTHY MEN	RAILROAD EXPLOYES
TIN CAN MFRS.	ICE MFRS.	CONTRACTORS

Our complete book of mailing statistics on 7000 classes of prospective customers for the asking.

ROSS-GOULD **North 9th St.** **ST. LOUIS**

The Ideal Electrical Illuminating Outfit

FOR EVERY PURPOSE AND USE

The most practical and convenient outfit for Physicians and Surgeons where a good light is required and an advantage in making his emergency calls to examine and treat the Throat, the Nares, Eye, Ear and many other uses. This complete outfit with all attachments including Tongue Depresser, Ear Speculum and curved and straight metal attachments for the mouth, etc., and regular pen light which carries in the pocket like a fountain pen, also includes three separate light attachments; mailed anywhere in receipt of $3.50. Literature on request.

Ideal Electrical Supply Co.

299 BROADWAY *NEW YORK CITY*

The Jefferson Medical College

1825 OF PHILADELPHIA 1909

A Chartered University Since 1836

90th Annual Session Begins Sept. 24th, 1914, and Ends June 6th, 1915

The Course is of four years duration and is eminently practical throughout. Practical manual training in ten different and fully equipped laboratories. Recitations by members of the Faculty and others. The new Jefferson Hospital, with unsurpassed facilities for clinical teaching, entirely owned and controlled by the College, is devoted to the instruction of students. Small sections and intimate personal contact with patients in the wards and dispensaries. A library of 4,200 volumes, in charge of a trained librarian, is available for the use of the students, without charge. An opportunity for every graduate to enter hospital service. An optional Five Year Course is offered. Post-graduate Courses throughout the summer and during the session. Special students possessing sufficient qualifications are admitted to all courses.

Special Announcements will be Sent Upon Application to

ROSS V. PATTERSON, M.D., Sub-Dean

Anasarcin

TRADE MARK

TABLETS

A DEPENDABLE REMEDY IN

Gardio Vascular Diseases

Clinical results have proven to thousands of physicians that Anasarcin is of unsurpassed remedial value in the treatment of disorders of the circulatory system and of ascitic conditions.
It controls heart action, relieves dyspnoea and eliminates effused serum.

Anasarcin's Distinctive Features

Dependability of the cardiac stimulant and diuretic properties of its ingredients made certain by standardization.
Prevention of toxic cumulative effect.
Distinct, definite dosage.
Absence of ill effects after prolonged administration.
Constructive influence upon circulatory and nutritive processes.
Restoration of balance between arterial and venous systems.
That you may observe the action of Anasarcin and subject it to an exacting clinical test, we will supply a sufficient quantity for that purpose without expense. To physicians only.

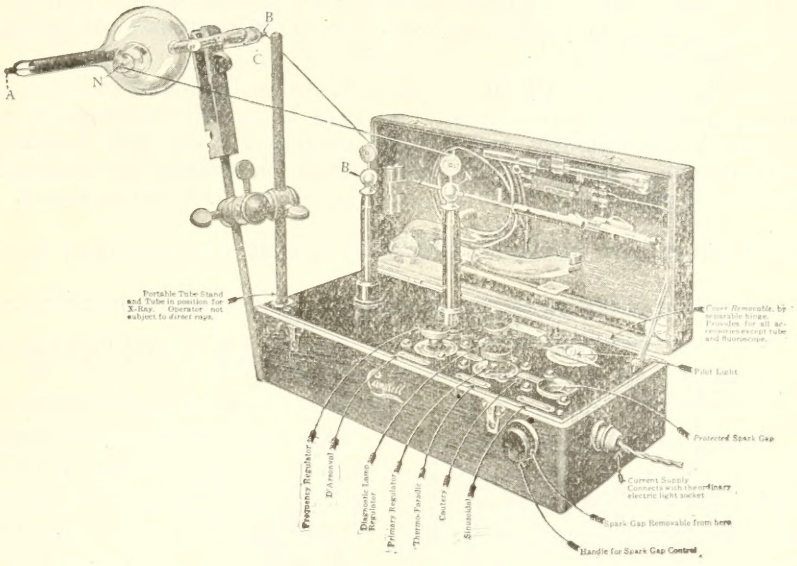
The ANASARCIN CHEMICAL COMPANY

WINCHESTER, TENNESSEE.

Thomas Christy & Co., London, Agents.

Eight Outfits in One

X-RAY
THERMO-FARADIC D'ARSONVAL
CAUTERY SINUSOIDAL
DIAGNOSTIC LAMP EYE MAGNET
HIGH FREQUENCY



Campbell Complete Office and Portable Outfit

Guaranteed to produce more than enough current for any X-Ray work and has in addition seven other valuable currents.

SAVES YOU OVER $100

Increase your office practice by installing an outfit on our very easy payment plan. Office Practice is Cash Business.

Write for Catalogue of these coils or any other Electro-Therapeutic Apparatus.

Southern and Western Sales Agents

CAMPBELL ELECTRIC CO., Lynn, Mass.

Success in the Paraffin Oil Treatment of Your "Stasic" Patients

requires the use of a petroleum oil of a quality and character that will assure the effects desired without the slightest harm or danger. Such is

INTEROL

(Reg. U. S. Pat. Off.)

an American paraffin oil that is not only tasteless, odorless, and without acid or "bloom," but one that is totally free from the "lighter hydrocarbons" (*which often produce renal disturbance*) and the sulphur compounds (*which tend to cause intestinal irritation*).

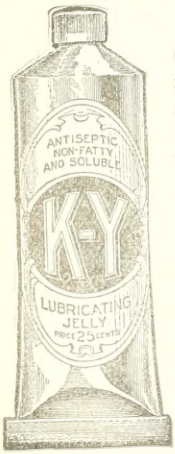
Therefore, in using **INTEROL**—a pure, flavorless, safe and effective mineral oil—the painstaking physician may be sure he is administering a product that may be confidently relied upon to produce the full benefits to be derived from the paraffin treatment of *chronic constipation* and *intestinal stasis.* **INTEROL** is obtainable from druggists generally. *Booklet on request.*

VAN HORN AND SAWTELL, 15-17 East 40th Street, New York City

"The Cleanest of Lubricants"

K-Y *Lubricating Jelly* (REG. U. S. PAT. OFF.)

"The Perfect Surgical Lubricant"



Absolutely sterile, antiseptic yet non-irritating to the most sensitive tissues, water-soluble, non-greasy and non-corrosive to instruments, "K-Y" does not stain the clothing or dressings.

Invaluable for lubricating *catheters, colon* and *rectal tubes, specula, sounds* and whenever aseptic or surgical lubrication is required.

Supplied in collapsible tubes.

Samples on request.

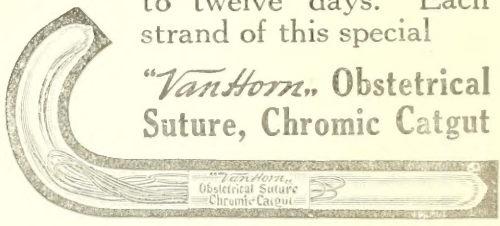
VAN HORN & SAWTELL

NEW YORK CITY 15-17 East 40th Street and LONDON, ENGLAND 31-33 High Holborn

IN THAT CONFINEMENT TEAR

If you favor immediate repair, use our especially chromicized catgut prepared to hold seven to twelve days. Each strand of this special

"VanHorn" Obstetrical Suture, Chromic Catgut



is threaded on a suitable needle, ready for instant use. Indispensable for your surgical bag. One tube in each box. Price, 25 cents each; $3.00 per dozen tubes. No samples.

For Sale by Your Dealer, or Sent Upon Receipt of Price

VAN HORN and SAWTELL

New York, U. S. A. 15-17 E. 40th Street AND London, England 31-33 High Holborn

NASHVILLE JOURNAL
—OF—
MEDICINE AND SURGERY

CHARLES S. BRIGGS, A.M., M.D., Editor.
W. T. BRIGGS, B.A., M.D., Associate Editor.

VOL. CIX. DECEMBER, 1915. No. 12

Original Communications

SALPINGITIS.*

BY W. H. WARD, M.D., NASHVILLE, TENN.

The most interesting feature of this subject to me is the absence of literature and statistics of its operated morbidity. My short experience has created a desire for me to find out just why we do not hear more discussion as to whether best results come from conservative or radical treatment. We do not wish these from those who theorize as to results of removal of certain female organs, but from the surgeon and general practitioner. Every medical man should keep an accurate history—get an accurate description of any operative procedure, that he may be able to supplement the mortality statistics with the morbidity statistics of which they know little. Our hospital statistics report those patients as cured that leave the hospital in comparative comfort and have nothing to do with whether their condition was relieved or not. What we had best know is how many get entirely well, how many improve and how many are worse after our treatment. We fear very much more killing a patient than mak-

*Read before the Nashville Symposium Society, December 9, 1915.

ing an invalid of one. Yet most of us would rather die than be useless the remainder of our lives. My experience is too short to try to advise when to operate, and what type of operation is best. However, a few morbidities suffice to prove to one that pelvic surgery is unsatisfactory. Why, then, should we disregard it? Why shouldn't the journals be full of statistics and suggestions about its treatment. It can not be that we feel the subject is closed, but that it is neglected.

I feel sure that there are many operations for inflammatory conditions that are useless, even harmful. From my short experience the best results have been gotten from the worse type of cases. Why? Because these cases were having a great deal more trouble than they would have following surgery. I doubt if one could promise to cure any pelvic inflammation entirely. Then we should consider each case separately. Operate on those cases that have more trouble than you would reasonably expect them to have after operation. Give these cases a few medical cures before telling them they need surgery. Wouldn't a rule like this be good? Treat these cases medically until their general health and comfort is being more impaired than your experience teaches you it would be after removal of part or all of their organs of reproduction. The focus of injection is in the uterus, and both tubes are usually involved, making it necessary in most cases, to deprive the woman of the function for which she was created. I think the uterus should be removed many times when it is left. Wouldn't it be natural in this age of local infection to attribute many of symptoms these patients have to toxins rather than reflex? I think this focus should always be removed unless there is still some chance of pregnancy.

There is just one other interesting phase of this subject we wish to call attention to. Don't operate on these cases in the acute stage. They should never be considered emergency cases except in case of rupture of tube into peritoneal cavity. These cases may clear up even after cul de sac drainage.

Don't operate earlier than three weeks after temperature and leukocyte count is normal.

In conclusion, keep accurate statistics of your cases—your operative results. Don't operate too early.

Selected Articles

SOME OF THE AUTOMATIC BALANCES IN THE HUMAN BODY.

BY RICHARD COLE, A.B., M.D.,
Montclair, N. J.

Ever since the days of John Hunter it has been known that the controlling influence of the human will over the bodily functions and sensations may be immeasurably great. Tuke quotes Hunter in relation to the escape of the latter from the wiles of the mesmerizer. The mysterious power by which the will of one person is made by means of expectant attention or otherwise, temporarily subservient to that of another was then called animal magnetism, as I believe it is still designated by the so-called Christian Scientists.

Hunter, in his lectures on surgery in 1786-7, in treating of animal magnetism, relates an experience of his own. He had been persuaded to submit himself to the influence of the magnetizer, and speaks of the matter in this wise: "But considering that if any person was affected by it, *it must be by the imagination being worked up by the attention to the part expected to be affected,* and thinking that I could counteract this, I went, and accordingly when I went I was convinced by the apparatus that everything was calculated to affect the imagination when the magnetizer began his operations, and informed me that I should feel it first at the roots of my nails of that hand nearest the apparatus. *I fixed my attention on my great toe,* where I was wishing to have a fit of the gout, and I am confident that I can fix my *attention to any part until I have a sensation in that part.* When ever I found myself attending to his tricks, I fell to working with my great toe, working it about, etc., by which means I prevented it (the attempted mesmerism) having any effect upon me."

Tuke says that the above excerpt really contains the gist of all that has been written on the influence of "expectant attention and the imagination" for the century following Hunter, and also added that the latter might have made as great a metaphysician as he was a physiologist. However, this may have been, it seems wise that we should in the beginning of our study of the bodily balances, and the emotions, give a thought to the enormous power of the human will, which has hitherto for the most part, at least, been considered as an attribute quite apart from the physical characteristics of its possessor.

The tendency of modern teaching, however, points to a close, if not a causative relation, between the bodily functions and the will. Certainly the sensitive relations between the emotions and the body cells have received most striking proof from a number of recent investigations and many phenomena hitherto vaguely attributed to spiritual, or external influences, have been shown to be due to material changes in the state of the nerve cells. Cannon explains the so-called "ordeal of rice" as practiced in India. It was early discovered that excitement or fear may inhibit the flow of saliva. Advantage was taken of this discovery in the trial of alleged criminals in the East Indies, and probably this primitive method of judicial procedure still obtains in that country. The suspected culprits were obliged to fill their mouths with the consecrated rice, which they were required to chew a short time and then spit out on the leaf of the sacred fig tree. If any of this ejected rice was found to be dry, the person who had chewed it without being able to insalivate it, was assumed to have had a "dry mouth" from guilty fear, and was adjudged guilty as indicted.

What is true of the salivary flow is also true of the secretion of gastric juice. And a curious difference between a hungry child with a gastric fistula and hungry dogs with gastric fistulæ has been noted. Pawlow showed that in the dogs the mere sight of the food caused the stomach juice to flow freely, whereas when the food was shown the boy, and

then withheld, he grew angry and began to cry, and no gastric secretion appeared. Bogen also mentioned a case of a child with closed esophagus and a gastric fistula who sometimes fell into such a passion after longing in vain for food that even after he was pacified and given food no gastric juice would appear.

Another interesting case is cited showing the psychic inhibition of the gastric secretion in a dog with a gastric fistula and a side pouch of the stomach, which, as in Pawlow's experiments, opened only on the exterior of the body. In this animal "sham feeding"—that is, feeding by the mouth, none of the food reaching the stomach—excited a copious flow of gastric juice, a true psychic secretion, resulting from the pleasurable taste of the food. Five minutes of this sham feeding usually started a secretion lasting twenty minutes and amounting to 66.7 c.c. of pure gastric juice. When, however, a cat was brought into the room, the dog flew into a great fury. After the cat had been removed and his canine majesty had been calmed, he was given a sham feeding for five minutes. He was hungry and ate eagerly, but no gastric secretion worthy of mention followed; only 9 c.c. of an acid fluid, containing much mucus, was produced. On another occasion, after the flow of gastric juice had been well established by a sham meal, the cat was brought in, and the dog again lost his temper, with the effect of stopping the secretion of gastric fluid for the next fifteen minutes. A case of a girl is reported in whom the gastric secretion long outlasted the period of eating, although owing to esophageal and gastric fistulæ no food entered the stomach. It has been recently shown that psychic disturbances similar to those just shown will inhibit the secretion of the pancreatic juice and the flow of the bile.

Cannon asserts, just as there are psychic secretions, so there is probably a "psychic tone," or "psychic contraction" of the gastrointestinal muscles as a result of taking food. For if the vagus is cut *just before taking food* the usual gastric wall contractions do not occur, but if this nerve is cut

after food has been eaten with a relish, the contractions which have already started continue without cessation. As both of the above operations had been done under anesthesia, the incidence of pain could not have influenced the results. In the absence of hunger, which in itself provides a contracted stomach, the pleasurable taking of food may therefore be a primary condition for the appearance of natural contractions of the gastrointestinal canal.

Pain produces the same change as the emotions of which we have just spoken, both in the external parts of the body and in the internal secretions. Wertheimer proved many years ago that stimulation of a sensory nerve in an anesthetized animal—such stimulation as in a conscious animal would induce—quickly abolished the contractions of the stomach, and Netschaiev showed that excitation of the sensory fibers of the sciatic nerve for two or three minutes resulted in an inhibition of the secretion of gastric juice, which lasted for several hours.

Emotional conditions or feelings may produce opposite effects on the alimentary canal, some favorable to digestion and some inhibitory. These opposing conditions are expressed through nerves which are correspondingly opposed in their influence on the digestive organs. The cranial nerves are the agents for psychic secretion in the salivary glands, and cause also dilatation of the blood vessels of these glands.

Pawlow has shown also that when the vagi are severed psychic secretion is abolished. These nerves tend strongly toward bodily conservation by contracting the pupils against intense light and slowing the heart rate, which gives rest to the cardiac muscles. They also provide for the flow of saliva and of the gastric juice and by supplying the muscular tone needed for the contractions of the alimentary canal, they bring about and regulate digestion and absorption. They form one of our bodily balances to build up the reserves and fortify the organism against stress and privation.

One of the striking features of a disordered metabolism which seems to be the underlying condition in diabetes, can-

cer, and insanity, as well as in many other dyscrasiæ, is glycosuria. Folin and Dennis found glycosuria in 19 per cent of 192 insane patients, most of whom suffered from some form of depression, apprehension, or excitement, and Arndt has reported the appearance and disappearance of glycosuria in his patients concomitantly with the appearance and disappearance of alcoholic delirium.

Bohm and Hoffman produced abundant glycosuria in about one-half of a number of cats bound to a board having a tube in the trachea and another in the urethra. So long as the glycosuria lasted, in three determinations, the sugar in the blood was slightly above normal, but returned to normal when the sugar disappeared from the urine. This form of glycosuria caused by binding animals securely in a fixed position was dubbed Fesselungs diabetes, which can not be justly called emotional glycosuria, although it was found to depend largely upon the state of excitement of the animal. In three of the cats so bound no glycosuria followed pain, cooling, or bandaging. They remained calm and passive, although bound in the holder for four consecutive hours, but when confined singly in cages, and barked at for a half hour by an energetic dog, they promptly developed the sugar in their urine.

Nine medical students submitted their urine to a test for sugar before and after a hard examination. Four of them had glycosuria at the second test, though none of them had it at the first one. The same procedure was adopted before and after an easy examination, and then only one of the students showed the glycosuria. Twelve out of the twenty-five football players in the Harvard University team had glycosuria after the most strenuous game of the year in 1913. Of those showing sugar five were substitutes and did not get into the game. None of the twenty-five had any sugar in their water on the day before the game. An excited spectator also showed glycosuria after the game, which had disappeared on the following day. From these and a number of similar cases it is shown that men, cats, dogs and rabbits

have a temporary increase of sugar in the urine, and coincidentally, in the blood, from emotional excitement.

Since artificial stimulation of the splanchnic nerves produces glycosuria, and since major emotions such as rage and fright, are attended by nervous discharges along the splanchnic pathways, glycosuria would be expected as a concomitant of excitement. How much the stimulation of the adrenal glands may contribute to this result has been a matter of dispute. Cannon, after careful experimentation, convinced himself that removal of the adrenals inhibits glycosuria. It may be noted in passing that the liberation of sugar and adrenalin at the moment when great muscular exertion is about to be demanded of the body is a significant instance of biological adaptation.

The first, because the sugar is needed in the unusual effort. The second, because the adrenalin directly stimulates muscular action and clears away the fatigue products (metabolites) and so revives the drooping strength. This property of adrenalin will be spoken of again under the heading "second wind."

As the abdominal arteries and veins are under the control of the splanchnic nerves and, as intimated above, states of excitement are characterized by discharges of energy through these nerves, so in violent effort the diaphragm and the muscles of the belly-wall are voluntarily and antagonistically contracted, in order to stiffen the trunk as a support for the arms and the abdominal muscles, which result forces the blood out of the belly and does not permit its return until the parts are relaxed. It is well known that blood pressure may suddenly rise from 110 mm. to 180 mm. during extreme physical effort, which shows that a larger quantity of blood than usual goes to the heart for distribution to the skeletal muscles and this blood as just pointed out is temporarily taken away from the great vessels of the abdomen.

Oliver and Schaefer were able to show by actual measurement that the viscera of the splanchnic area, the spleen, kidneys, and intestines suffer a considerable decrease of volume,

when adrenalin is administered, whereas the limbs show a corresponding increase in size and the relative degrees of sympathetic innervations may be judged by the action of the adrenalin in a given case. In other words, at times of pain or excitement, sympathetic nerve discharges, probably aided by the adrenal secretion, simultaneously liberated, will drive the blood out of the vegetative organs of the interior of the body into the skeletal muscles.

There is one very important exception to the statement that adrenalin will empty the visceral vessels of their blood. As has been pointed out, adrenalin has a vasodilator and not a vasoconstrictor action on the cardiac arteries. It is also well known that this powerful agent has little or no effect upon the cerebral and pulmonary blood-vessels. Thus we see that the blood supply of the "tripod of life" is not diminished in physical stress; on the contrary, the heart actually has more blood to send to the muscles, borrowed from the viscera, which do not need it at the time, while the brain and lungs have an undiminished supply. This is an exceedingly significant and impressive biological fact.

It has been found that when adrenalin is set free in the circulation the blood will clot more rapidly. This is, of course, another safeguard developed by nature in animals as a preservative in times of conflict and injury. After long study of this question Cannon concludes that the property of causing a more rapid clotting of the blood does not reside in the adrenalin itself, but in the liver, and that the action of the adrenalin is to force the liver to set free this blood-clotting agent in the bloodstream in greater abundance, in times of stress, than in ordinary conditions. This substance, whatever it may be, is continuously destroyed in the body and apparently as rapidly renewed in the liver. The above statement has not yet conclusively proved to be correct, but there seems little doubt that the facts are as stated.

Another interesting phase of animal life gradually perfected through a long period of evolution is that correlated action of various functions which we know as reflexes. The

most characteristic feature of reflexes is their "purposive" nature, or their utility either in preserving the integrity of the organism, or in safeguarding it from injury. When, therefore, we have discovered that among the automatic reflexes accompanying pain, fear, and rage, are the increased discharge of adrenalin and of sugar into the blood, we are led to inquire into the utility of this phenomenon.

To be of the most value to the economy in times of stress these reactions must be prompt. This we find to be the case. If the splanchnic nerve be stimulated below the diaphragm, a responsive secretion of adrenalin will occur in 16 seconds, and within a few minutes after the stimulation of the same nerve, the sugar content of the blood is increased between 10 and 30 per cent. This discovery of the periodic increase of the blood's sugar content and its variation with the bodily demands is another recent physiological triumph. The importance of sugar as a readily assimilable agent in the promotion of muscular activity has been long known. But that it is supplied by the bloodstream to the laboring muscles in quantities suited to the demand, and the *modus operandi* of the procedure have only recently been determined. Here is another most significant biological balance. Fear and anger are both capable of stimulating the splanchnic nerves, hence they call forth promptly the secretions which enable the body to prepare itself for combat or flight.

As a further proof, of the consumption of sugar as glycogen in muscular activity, Cannon cites the fact that the carbon-dioxide output during severe exertion may exceed by twenty fold the output during rest. The storage of glycogen in muscle and the disappearance of this deposit from the muscles after great exertion, are well known. This same phenomenon is also observed in muscles that have been over stimulated by strychnine. Hence we may note, in passing, that strychnine is contraindicated in shock. The lessened capacity for work of muscles deprived of their stored-up glycogen is well known, as is the simple chemical reaction between sugar and lactic acid which is observed after repeated

musclar contractions. All these phenomena show that carbohydrate material(glycogen and sugar) is the elective source of energy for muscular contraction.

We can not develop this aspect of our subject as fully as we would like, as this paper is already assuming formidable proportions. Let us, however, for a moment take up another fruitful aspect of the body reflexes. Asphyxia, whether due to external or internal agencies, like pain and excitement, not only liberates adrenalin, but, as might be inferred from this property, also mobilizes sugar. This accords with the observations of McLeod who says that the increased liberation of glycogen from the liver is produced by muscular exertion. Here again, we observe a purposive reflex as possibly associated with increased carbon dioxide in the blood. Zuntz also asserts that the asphyxia of great physical exertion may call out the blood sugar to such a degree that, in spite of its increased use in the active muscles, glycosuria may ensue. The evidence already given that adrenalin relaxes the smooth muscles in the bronchioles, taken with the fact that it is freely liberated in asphyxia, shows that, by means of this agent, relief is automatically provided for in the body.

Thus, the well-known phenomenon of "second wind" is explained, by which almost miraculous relief and increase of efficiency are afforded to a distressed and nearly asphyxiated person. In other words, the asphyxia has set in motion the mechanism by which it has cured itself. So, in the establishment of the "second wind," in a struggling man, we note the same group of bodily changes leading to greater bodily efficiency that we have observed in pain and excitement.

To recapitulate, there are increase of blood sugar, increased secretion of adrenalin, altered circulation (already dwelt upon) by which the heart and through it the skeletal muscles, get more blood and the abdominal viscera less, while the supply to the lungs and brain remains stationary. Add to these the more rapid clotting of the blood as an effect of increased output of adrenalin, and the phenomenon of re-

lieving fatigue following the addition of adrenalin to the bloodstream, and the increasing dynamic power of the muscular fiber due to this same agent, and we have a similar series of protective bodily processes that we have observed to occur after the play of the strong emotions, fear anger, and pain.

Evolution has produced in the human body a marvelously balanced machine, which fortunately we are at last beginning to comprehend. When William James, the great psychologist, speaks of "Reservoirs of Power" he uses the term figuratively, yet he is mentioning facts and alluding to entities that every human and animal body is supplied with. From our present knowledge we are led to regard the adrenal glands as the balancing governors of the bodily machine, particularly in all times of stress and strain.

We have had an inkling of the great hemostatic power of adrenalin for a long time but we did not realize and probably do not yet appreciate, its wonderful value as a recuperative and regulating agent. That it prevents fatigue and overcomes nervous and muscular exhaustion, in a variety of ways, Cannon and others have beautifully demonstrated. They have pushed forward by their physiological researches the bounds of medical knowledge, and have started a train of inquiry which promises results of the utmost value.—*Medical Record.*

Extracts from Home and Foreign Journals.

SURGICAL

Extraction of Bullets from the Bladder by the Natural Channels.

At a recent session of the Academie de medecine de Paris, Dr. F. Legueu, professor of the clinic of diseases of the urinary tract at the Faculte de medecine de Paris, read an interesting paper on this subject. Rifle shot and grape shot are of such size and shape that they may be easily and rapidly removed through the urethra without incision. For this purpose Legueu uses a special lithotrite modified for the purpose. The instrument, introduced into the bladder by the urethra, seizes the ball by its point in touching it and in less than a minute the extraction is made without anesthesia. One patient left the hospital the next day. A superior officer who had been unable to walk for eight months was soon enabled to resume his duties. The most difficult thing is to ascertain that the ball is actually in the bladder in cases in which it comes from a very distant part of the body and is embedded in the tissues during the whole of the cicatrization of the wound. When radiography shows a pelvic ball two successive plates should be made, changing the patient's position. If the ball shifts its place, this shows that it is in the bladder. Only balls that are free in the vesical cavity can thus change their position. Cystoscopy, however, is the most useful method of exploration for giving an idea of the presence, the situation, the mobility of the ball, the condition of its surface and all the data necessary for the extraction by the natural passage, which remains the best and most expeditious method.—*The Journal of the Am. Med. Asso.*

Two Cases of Swallowed False Dentures Treated with Apomorphine.

Gerstein, a marine surgeon, reports the case of a stoker who swallowed a plate with four incisor teeth in his sleep. The object could neither be seen nor felt with forceps. Three hours before he had eaten heartily. The author at once gave him an injection of apomorphine and placed him in the best position possible for vomiting (prone position, neck stretched and forehead supported. In five minutes came the first retch. The next in order brought away the teeth. Vomiting lasted 12 minutes. The second case was a duplicate of the first.—*Medical Record.*

A New Antiseptic.

Of late numerous reports have appeared in both the medical and lay press concerning a new antiseptic that is proving wonderfully efficient in the hands of Dr. Alexis Carrel in the French Hospital Service.

In view of the fact that the treatment of the wounded in the present war has changed the prevalent methods of handling the wounded and that the treatment has resolved itself into the older method of antisepsis rather than asepsis—a return to efficient antiseptic that those previously in use.

The new antiseptic is essentially a solution of chlorinated lime, and its method of preparation is simple and cheap. Its efficiency as a bactericide has been worked out by Dr. Dakin, of New York, and in the hands of Dr. Carrel it has given excellent results.

The method of preparation is to add sodium carbonate to a solution of chlorinated lime. After shaking the solution, the supernatant fluid is siphoned off and filtered. To this solution is then added enough boric acid to render it slightly acid. This overcomes the marked corrosive action of the orinary solution of chlorinated lime, and at the same time serves to increase its germicidal activity. This solution is

not destructive to living tissue and has a marked action as a germicide, and is especially valuable in suppurating and gangrenous wounds.

It is now being used extensively, and outside of its present use in military surgery will probably prove valuable as an application to all wounds possessing a possible infection, and where contamination is probable.—*Medical Sentinel.*

Strangulated Hernia—Removal of Appendix from Hernial Sac.

This specimen is that of an appendix which was removed from a child four weeks old. The case was one of obstruction in a right inguinal hernia sac. The part of the bowel in the sac was the cecum, ileum and appendix. When the sac was opened, the appendix first presented itself. It was of a normal pink color, while the head of the cecum and ileum was dark, congested and almost black. The appendix and its mesentery were tied off with one ligature of the catgut, and the sac was closed and transplanted after the method of Kocher, of Berne.

The operation was performed Tuesday afternoon, November 9th. Before operation the child's bowels had not moved for twenty-four hours and vomiting had been persistent. However, four or five hours following the operation, the bowels moved thoroughly the child again began to nurse, and is today well and hearty. I present this specimen not because of any disease, but to show the size, length, etc., of the appendix at four weeks of age.—*The Lancet-Clinic.*

Prophylaxis of Joint Conditions in Childhood.

A timely paper emphasizing the fact that there is a large field of preventive work in which the orthopedist can work as well as other practitioners. It also points out that most valuable and constructive work in prophylaxis is to be accomplished by the general practitioner in recognizing early

that there is a "reason for growing pains," that club-feet and congenital hip can not be "outgrown."

Hip disease and destructive joint lesions are often insidious in onset and careful and early diagnosis will mean perhaps saving a joint, and the old fogy notion of "waiting" because the limb may have become better is a real danger and results disastrously to the future of the child.

Particular stress is laid on proper examination of children in reference to static conditions, faulty attitudes, prominent abdomens, lordosed backs, hyperextended knees, relaxed ligaments, etc. Ligaments and muscles can not overcome bony deformities, as they yield to positions of the bony column, and nature may compensate the deformity, but the resultant bone changes are productive of difficulties in later life. He cites changes in the spinal column following prolonged faulty attitudes.—*Pediatrics.*

Disinfection of the Hands and Abdominal Skin Before Operation.

McDonald (Surgery, Gynecology and Obstetrics, July, 1915) advises the following solution:

Acetone (commercial), 40 parts;

Denatured alcohol, 60 parts;

Pyxol, 2 parts.

With this solution, in no case was any growth obtained after thirty seconds' immersion. This period, however, is too short in practice, and one minute is advised to provide a margin of safety. Preliminary washing with soap and water was found to be no aid to efficiency, but was rather a slight hindrance. It had the additional disadvantage of irritating the hands.—*Buffalo Med. Journal.*

Ethyl Chlorid as a General Anesthetic.

Jacques Carles and Andre Charrier, Progres Med., Oct., advise using c.c. at the beginning, then ½ c.c. every three or

four minutes. As contraction of the jaws frequently occurs and the nasal passages may be inadequate, the mouth gag should always be available. The inflammability of ethyl chlorid and the occasional failure of muscular relaxation are disadvantages. For long and delicate abdominal operations, chloroform or ether is advised.—*Buffalo Medical Journal.*

MEDICAL

The Occurrence of Miliary Tuberculosis of the Liver in the Course of Pulmonary Tuberculosis.

Dr. Robert G. Torrey presented this paper, which was based upon a study of the reports of 132 autopsies upon subjects showing pulmonary tuberculosis. The frequency with which an apparently recent and widespread miliary tuberculosis of the liver was found at autopsy in cases of pulmonary tuberculosis, and the finding that in cases of phthisis dying from other causes, as fatal hemorrhage, acute peritonitis, septicæmia, lobar pneumonia, etc., miliary tuberculosis of the liver was not found, made it appear that the hepatic involvement might be an important factor in determining the fatal issue. The author thought it probable that infection of the liver frequently took place by way of the spleen, where the tubercles were of varying age, and lie in close relation to large blood spaces directly connected with the portal vein.—*Medical Record.*

Spartein Sulphate.

After using this drug in 305 recorded cases, Earp (S. E., in *Nevada Medicine*) concludes that the dose usually given is too small, one grain three times a day being suggested. A variety of cardiac cases is referred to; some in which digitalis had failed. Spartein seems to act as a heart tonic, without untoward effects; more heart force and less frequency

is evident after spartein has been used. It favors heart nutrition and the increase of heart tone. By dilating the arterial capillaries, it reduces the resistance against which the heart is called upon to propel the blood. It has the advantage of acting quickly. Earp is emphatic in his praise of the drug and thinks it deserves more extended use; he claims to have proven its value in cardiorenal cases.—*New Orleans Medical and Surgical Journal.*

Wart Cures.

The following are among the best wart cures: 1. Glacial acetic acid, a tiny droplet applied daily on the end of a toothpick or a quill cut like a pen. Caution: If the wart gets much inflamed and the application becomes painful, stop the application until the inflammation subsides. A very few applications are usually sufficient. 2. Concentrated solution of chromic acid, applied in the same manner, and under a similar caution. This is the *best,* without exception, that we have ever tried, and never fails when properly handled. Very frequently a single application suffices. 3. Paraform collodion, made by adding 1 part of paraffin to 9 parts of collodion. Apply morning and evening, one coat on the other. The wart scales out in from two to three days. Paraform is trioxy-methylene. Any one of the three will answer your requirements. The following powder has also been highly recommended:

Salicylic acid	1 part.
Boric acid	3 parts.
Calomel	6 parts.

Rup up together to a fine powder. Put into little glass tubes, with the direction to rub a little of the powder well in thrice daily.—*The Medical Brief.*

Differential Signs of Hysterical and Organic Affections of the Nervous System.

These signs have been thoroughly worked out by Babinsky. They enable us to distinguish hysteria, the great simulator, from organic affections that resemble it.

Exaggeration of the reflexes is the first of these signs. The reflexes are not affected in hysteria. Exaggeration of the reflexes with epileptoid tremor belongs exclusively to organic spasmodic affections.

Hysteria gives rise neither to weakening nor exaggeration of the tendinous reflexes. It is impossible to "suggest" these phenomena in hypnotisable hysterical subjects or to cause them to supervene if they are weakened or abolished. Lastly, after recovery from hysterical paralysis by suggestion the reflexes will not have undergone any change.

Some hysterical subjects have well-remarked reflexes while, on the other hand, we meet with wide variations in persons free from this neurosis. Some subjects have lively reflexes while in others they are feeble and this quite independently of any suspicion of hysteria. All we get then is what may be termed the individual variation.

Exaggeration of the reflexes is absent in hysterical hemiplegia and monoplegia. If exaggeration be present we are dealing with an organic lesion in a hysterical subject.

The emotion factor has been remarked in the genesis of the convulsive and paralytic accidents of hysteria, and it has been made to play a foremost part whereas it is only of secondary importance. After the great earthquakes of Messina and San Francisco no cases could be discovered of hysteria or hysterical paralysis. Obviously then emotional shock must not be invoked too readily. We are indeed justified in assuming that it would be more likely to give rise to organic affections than to circulatory changes. The increased pressure which it causes may for instance lead to rupture of atheromatous vessels. This explains certain cases of hemorrhage after powerful emotions. Paralysis

supervening after a normal shock must not be classed as hysterical forthwith without other adequate reasons.

The coexistence of a sensitivo-sensorial paralysis with exaggeration of the tendinous reflexes must not lead us to conclude in favor of their hysterical origin. The paralysis may indeed have been caused by suggestion yet the other phenomena may be independent thereof and we must always bear in mind the possibility of an association of the neurosis with organic disturbances. We ought always to apply the following criterium:

Exaggeration of the tendon reflexes is not a feature of hysteria. If the reflexes are paralyzed on the paralyzed side this means an organic lesion. Spinal tremor often accompanies exaggeration of the reflexes but this sign may be met with in hysterical or tuberculous or anæmic subjects without our being justified in ascribing to them any absolutely decisive importance. We can not therefore base our diagnosis thereon but must be on the look out for other indications.

The principal signs to which we wish to call attention are: reflex extension of the big toe, the combined flexion movement of the thigh and the pelvis, the pronation sign, the platysma myoides sign and inversion of the radius reflex.

The bigtoe, or Babinski's sign, consists in extension and abduction (fan sign) of the bigtoe under the influence of stimulation of the sole of the foot. This sign is inconstant but when present we are justified in asserting the existence of an organic lesion.

The sign of combined movement of flexion of the thigh and pelvis, according to Babinski, is elicited as follows: The patient is placed on his back on a hard surface, harder than an ordinary bed, with his head on a pillow, the arms crossed over the chest. He is then instructed to try to raise himself into the sitting posture. Under these conditions we plainly see the thigh on the affected side undergo flexion and the heel is raised. This phenomenon may be observed on both sides but it is always more marked on the affected side. This

sign is pretty frequently met with in hemiplegics though it may be lacking. In some instances it is very slight and can only be elicited by making the patient sit up in bed, then telling him to throw himself sharply back on to his back whereupon we note slight flexion of the thigh.

The pronation sign is only met with in flaccid hemiplegia. This is how it is elicited: if we place the subjects's hand in supination on the healthy side it naturally retains that position whereas on the affected side it rolls over in pronation as soon as it is left to itself. This is an easy sign by which we can recognize organic hemiplegia.

The sign of the platysma myoides consists of a powerful contraction of this muscle when the patient opens his mouth. The contraction is on the healthy side.—*LeMonde Medical.*

OBSTETRICAL

The Pregnancy Clinic and the Midwife. A Comparison.

James Lincoln Huntington outlines the difficulties that would have to be surmounted before the midwife could be educated in Massachusetts. While it would not be difficult to establish the machinery for licensing the midwife, such a law under present conditions would be futile. All the women practicing as midwives are breaking the law now, yet very few are prosecuted annually. Again, law that is not backed by public sentiment is futile and public sentiment in Massachusetts is absolutely indifferent as to whether midwives practice or not, or whether they are or are not licensed. Furthermore, by developing a midwife system a dual standard is established in obstetrics. We have been told that the immigrant can not be weaned from the midwife, but that she not only can be, but had been, weaned from the midwife can be seen by the casual observer who will visit the preg-

nancy clinic of the Boston Lyin-in Hospital. This institution was started in 1911 and there are now three similar clinics in Boston, besides others in small cities. All patients are urged to come to the clinic as early in their pregnancy as possible, and every year more patients are coming before the fifth month. During 1914 there were 2,067 women under the care of this clinic. The work of such an institution is education. The writer says: "We teach the community to appreciate good obstetrics, teach our patients how to obtain this care, and our students how to provide it. We feel confident that this is the solution of the obstetrical problem in Massachusetts, offering far better results than could the midwife, no matter how well trained and regulated. By the increase in the number of such institutions we are encouraged to believe that the midwife will gradually disappear, being superseded by the modern obstetrical dispensary."—*Medical Record.*

Twilight Sleep.

Freed from ethical and sentimental complications, the problem of Twilight Sleep is reduced to the following: Can morphine or one of its modifications, plus one or more drugs for "crossed action," produce adequate anesthesia for a condition fairly comparable with regard to pain and shock, to a fracture, dislocation, forced dilatation of a passage, and even some cutting operations? In the literal, immediate sense, this question can be answered in the affirmative, but the corollary presents itself, whether dosage can be regulated so as to be safe and efficient, considering that the compensating stimulation of pain is likely to be suddenly removed at any time within wide, extremely variable and unforeseeable limits. It is scarcely necessary to state that this problem includes not only the immediate physiologic action of the drug on the vital centers, but its direct and indifferent effect on intrinsic vascular and uterine muscle with reference to hemorrhage, its influence on lactation, etc. Further, we must

consider whether the drugs which are absorbed and circulate freely and which easily pass through animal membranes, can be so managed as to prevent their toxic action on the child, either by way of the maternal blood or the milk, remembering that morphine is a drug to which infants are peculiarly susceptible, both quantitatively and qualitatively, and that the newly born infant is always liable to respiratory failure to a degree rarely encountered in the adult except under obvious and crude conditions of disease, poisoning and accident.

These are a priori objections, but they rest on established empiric facts and physiologic principles. Can practical ingenuity and skill overcome them to such an extent as to render Twilight Sleep generally available?—*Buffalo Med. Jour.*

The Management of Infants at the Breast.

It is obvious, and a matter beyond argument, that the best way in which to rear a child is by breast feeding in its very early life. It is useless to contend that any form of artificial feeding is equal to that supplied by human milk. Such contentions are merely a waste of breath. If then agreement is so unanimous as to the superiority of breast feeding, how does it come about that a large proportion of infants are brought up by hand. The excuse for resorting to artificial feeding is either that the mother's milk is inadequate or unsuitable or that the infant possesses a defect which prevents it from suckling. This latter event is very rare and may be regarded as a negligible quantity. The reason almost invariably given for neglect to provide the infant with its natural food is that the mother's milk supply is lacking or inadequate.

In nine cases out of ten when this plea is advanced, it is not really so, in fact, a complete absence of milk secretion does not occur. Every mother secretes milk. It is known from experience and learned from actual practice that the establishment of a satisfactory supply of milk is dependent

upon the vigorous and effective suction of the child, and in the regular and complete emptying of the breasts. If the infant fails to complete his task residual milk is allowed to accumulate in the breast, the amount secreted diminishes rapidly and the breast becomes stubborn and difficult. If the amount of milk is small, the endeavor must be made to find the cause which has interfered with the suction of the child.

However, it is enough at the outset to insist that delay in the establishment of the milk supply is due to some one of the causes which directly interfere with the proper suction of the infant. Formerly absence of an adequate supply of milk was looked upon as evidence of maternal idiosyncrasy. Now it is known with an absolute degree of certainty that the fault lies in a mechanical interference with the suction of the infant or if an idiosyncrasy does exist, that it is one of the child's and not of the mother.—*Pediatrics.*

Care Required in Obstetrical Cases.

The question whether a physician or surgeon, charged with malpractice, has treated the patient or performed an operation with reasonable skill and care, is ordinarily to be tested by the standards of the school to which the physician or surgeon belongs; but if there is uniformity in the rules of practice and treatment, regular practitioners of any school are competent witnesses as to the proper diagnosis and treatment. Where a person who holds himself out as a medical expert or healer has no fixed rules of practice, he is still bound to treat patients with ordinary skill and care, and competent physicians regularly engaged in the practice are competent witnesses as to whether the treatment administered in the case was properly or negligently given. In an action for malpractice, where the defendant was an osteopathic physician, and professed to practice according to the rules and methods of that branch of the profession, it was held that physicians of the regular school were properly permitted to testify as to the progress and condition of labor in

an obstetrical case, the methods of delivery and the proper treatment of the mother after the birth of the child.

Ordinarily, only physicians and surgeons of skill and experience are competent to testify as to whether a patient had been treated or an operation performed with a reasonable degree of skill and care, but testimony as to many matters connected with the treatment of a patient, such as the statements and acts of the physician or surgeon, as well as the external appearances and manifest conditions, which are observable by any one, may be given by more expert witnesses.

A physician employed in an obstetrical case is required to care for and aid the patient, not only during her confinement and the delivery of the child, but it is his duty to make a careful examination of the patient and give reasonable and proper attention to any lacerations or injuries resulting from the delivery; and if he fails in this respect or to inform the patient or those caring for her as to her condition, or to give them instructions so that they may act intelligently in the further care and treatment of the patient, he is guilty of negligence and liable for the resulting injuries. An objection that the Kansas statute does not permit an osteopath to administer drugs or medicine or perform operations in surgery, and that therefore he could not legally take any steps to repair a laceration, was met by the opinion that if an osteopath may lawfully attend an obstetrical case such a repair might be regarded as a mere incident of the delivery rather than an operation in surgery.—Yard vs. Gibbons, *Kansas Supreme Court,* 149 Pac. 422.

Editorial

PUBLISHER'S NOTICE—The Journal is published in monthly numbers of 48 pages at $1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

ANTISEPTICS.

Dr. Jas. C. Bloodgood, in the December number of *Progressive Medicine*, gives a thorough review of the German, English, French and American opinions in regard to the value of different antiseptics in infected wounds. The general impression one obtains when reading this review is that at present there is no antiseptic the surgeon can rely on to successfully combat wound infection. The best treatment seems to consist in frequent changes in dressing, free drainage and irrigation. Sir Almroth Wright suggests the use of a hypertonic solution consisting of 0.5 per cent citrate of soda and a 5 per cent salt solution so as to bring about a lymph lavage. If the recesses of the wound are accessible it is reasonable to suppose constant removal of proliferating bacteria and necrosing cells will tend to improve conditions in the wound and will at least do more good than the application of some antiseptics, the efficiency of which is doubtful.

That plain water or normal saline is a very valuable agent in treating infected wounds has been known for so long that it is almost forgotten. In fact, many of the younger surgeons probably never use this method of treatment and yet many persistent and intractable phagadena will respond to continuous immersion when all antiseptics have failed.

Except for alcohol, peroxide of hydrogen and balsam of

Peru, we have never had much faith in the value of antiseptics in wounds. And even alcohol, like strong solutions of bichloride of mercury, phenol, silver nitrate and other drugs, not only kills or at least devitalizes the tissue cells when it destroys the germs but also tends to form a superficial wall of coagulated tissue through which no antiseptic can penetrate and under which the remaining germs can proliferate.

Peroxide of hydrogen and oxygen itself have proven efficacious in fighting anaerobic infections, especially if combined with free incision for drainage. Our experience with balsam of Peru while limited, has been so favorable that we can not help but feel that a more general use would show that in this drug the surgeon has an agent which is very efficacious. It may not be much of an antiseptic in the test tube or on Petri dishes, but put it in a wound and the tissues respond by throwing out a large amount of fluids inimical to most bacteria and at the some time few if any of the cells are destroyed. In this way nature responds to the call of an apparently insignificant agent and irrigates the wound herself, and this is probably the most efficacious manner of irrigation after all. We have so much faith in balsam of Peru that if personally injured we would prefer having gauze soaked in this drug placed in the wound to all other antiseptic treatment.

We believe an extensive use of balsam among the belligerents abroad would prove that it is as efficacious in recent as in old wounds and that the stimulation which we all know hastens the formation of granulation tissue in old wounds will produce a lymph lavage in recent wounds. We are sorry this drug is not more extensively used but hope that future experiments on animals will prove the truth of what we have written above.

The "Movies."

We have commented in these columns on the possibilities of the cinematograph in education, especially medical edu-

cation, before, and we see that many of these possibilities have long since become realities. This is as it should be, and as it was certain to be. However, there is one aspect of the question about which we have read comparatively little and about which there seems to be little written. This is the question of censorship.

In this country we are all free and nowhere in the world is there a greater freedom of the press, but even here there are restrictions on all literature which may be called obscene. Yet, so far as we are able to judge, our National Board of Censorship allows many pictures to pass which are obscene and debasing and a menace to the welfare of the nation. This class of pictures may slip through on the plea that they will educate the public, especially young women and men, in sexual matters. This is but a flimsy excuse, and one that should not be tolerated. The young men and women are educated sexually by these pictures it is true, but the education is somewhat similar to that the boy picks up when loafing around the corner grocery and is of the wrong kind.

We see no reason why the love of a whore should be made the theme of a moving picture when the love of an innocent woman is so much more beautiful, nor why the hero should fall in love with another man's wife when his adventures, disappointments and final winning out can be made just as exciting and thrilling when the object of his love is a maiden.

Education in sexual matters is desirable, and proper education will save many a girl from ruin, but the "sexual movies" now flooding the market for the most part are debasing and obscene and should be relegated to the bawdy house to which they are apt to lead many an unsophisticated girl unless steps are taken to suppress them.

"Rest Cottage."

We acknowledge the receipt of circular descriptive of the new building at College Hill, Cincinnati, Ohio, called the "Rest Cottage." This is a hospital for purely nervous pa-

tients, providing a comfortable home with all medical equipments to make it adaptable for the use of that unfortunate class, the nervously sick. Every modern appliance has been adopted and the home is ideal for its purposes. We are in receipt of an invitation to the opening of this new hospital, which took place November 18th and 19th. The attention of the profession is called to the attractness of this hospital.

Sterilization of Dental Instruments Important.

The possibility of the transmission of disease through the medium of dental instruments has probably been considered by every occupant of the dentist's chair. It constitutes one of the fears with which a patient is possessed the moment he adjusts himself for his period of treatment. Authoritative instances of the conveyance of contagion in this manner are extremely rare, its frequency not being determinable, although a few will deny the possibilities of occurrences of this character.

The list of organisms which may contaminate dental instruments is formidable, but this does not mean that the diseases of which they are the causative factors necessarily ensue if they are accidentally carried into the mouth. Their presence upon dental instruments is, however, an indication of what the surgeons call poor technique. In surgery poor technique is usually attended with disastrous results, but in dentistry errors of this character may produce no ill effects. In spite of this relative freedom from danger, dentists are determined that their methods shall equal the highest standards.

Cleanliness should be the primary consideration in all dental operations. The white coat of the operator represents more than comfort; it is the symbol of neatness. The dentist who works with unclean instruments, who provides soiled linen, or who places a common drinking glass before his patient, should be judged accordingly. Fortunately the members of the profession who do these things are criticized

and suffer from loss of patronage, so that there is a strong tendency on the part of dentists to maintain their surroundings above reproach. With the sterilization of instruments some carelessness may manifest itself, partly owing to the fact that many instruments are injured by such processes, are too complicated to be treated in this manner, or that the public is not competent to detect errors of technique. However, the public is rapidly learning the value of aseptic methods and the proper equipment is now found in nearly all dental offices.

Thorough studies of the sterilization process have recently been made for dentists by the United States Public Health Service, at the request of various dental associations throughout the country, and in a recent publication of that Service detailed information will be found as to the accepted methods for the sterilization of all dental instruments.

The Dog as a Carrier of Disease to Stock.

Washington, D. C.—The dog in the country is a useful and pleasant adjunct to the farm if he is properly controlled and cared for, but when neglected, may readily become a carrier of disease to stock, in addition to gaining opportunity to kill sheep and destroy gardens and other property. Dog ordinances, as a general rule, have been intended chiefly to curb the dog's power of doing harm by attacking, biting, killing or running sheep or stock. The part that he plays as a carrier of diseases to animals only recently has been recognized, according to the zoologists of the Department of Agriculture, who believe that when this is better understood, rural ordinances and laws which lessen this danger will gain the support of the community.

Of the diseases carried to stock by dogs, the foot-and-mouth disease is probably of the greatest interest at this time. In this case the dog acts as a mechanical carrier of infection. The dog which runs across an infected farm easily

may carry in the dirt on his feet the virus of this most contagious of animal disease to other farms and thus spread the disease to the neighboring herds. In infected localities it is absolutely essential, therefore, to keep all dogs chained and never allow them off the farm except on leash.

There are, however, many other maladies in the spread of which the dog takes an active part. In Bulletin 260 of the United States Department of Agriculture, "The Dog as a Carrier of Parasites and Disease," it is pointed out that rabies, hydatid, ringworm, favus, double-pored tapeworm, round-worm, and tongueworm are often conveyed to human beings in this way. It occasionally happens also that the dog helps fleas and ticks in transmitting bubonic plague or the deadly spotted fever.

Hydatid disease is caused by the presence in the liver, kidneys, brain, lungs, and other organs, of a bladder worm or larval tapeworm. Bladder worms are often as large as an orange and may be larger. A dog which is allowed to feed on carrion or the raw viscera of slaughtered animals may eat all or part of a bladder worm containing numerous tapeworm heads. These tapeworm heads develop into small segmented tapeworms in the intestines of the dog. The tapeworms in turn develop eggs which are passed out in the excrement of the dog. They are spread broadcast on grass and in drinking water where animals can very well eat them and thus become infected. The hog is particularly liable to this disease because of its rooting habits. The eggs may get into human food, and persons who allow dogs to lick their hands and face also run the risk of getting the eggs of the tapeworm in their systems.

Prevention on the farm consists in so restraining the dog that he can not get at carrion or raw viscera. Viscera should be boiled before being fed to dogs and should never be thrown on the fields. If not cooked and fed, viscera and carcasses should be burned, buried with lime, or so disposed of as not to be accessible to dogs. Proper feeding of the dog

is essential, and the owner who does not feed a dog properly has no right to keep one.

The parasite which causes gid in sheep somewhat resembles the hydatid worm. A dog allowed to eat the brain of a giddy sheep may swallow this parasite and later distribute the eggs of the resulting tapeworm over the pasture. Sheep while grazing swallow the eggs with the grass which they eat. In the case of sheep dogs it is important to administer vermifuges often enough to keep them free of these worms. In the case of sheep measles, the bladder worm in the meat, typical of this disease, is swallowed by the dog and again the tapeworm eggs are passed by the dog to grass or water, and there are eaten by sheep.

Of the external parasites which dogs may carry to animals, fleas and the various kinds of ticks are both troublesome and dangerous. The remedy is clear. The owner must keep his dog clean, not merely for the comfort and happiness of the dog, but to prevent it from becoming a carrier of disagreeable and dangerous vermin.

These reasonable measures, important to the stock on the farm, have a direct connection with the health of the family. Where ringworm or other skin diseases break out among the children, or the worm parasites develop, it is well to determine whether a dirty or uncared-for dog may not be carrying infection on his skin or hair, or be conveying disease from carrion directly to the food and persons of his friends. Even if no one is infected with disease, the folly of allowing a dog to remain dirty and have the freedom of a home where personal cleanliness and hygiene are respected, is apparent.

Resolutions.

(Adopted by The American Medical Editors' Association.)

Whereas, The American Medical Editors' Association believes that the principle of the freedom of the press bears

unusual force in relation to the medical press, discussing subjects germane to medical progress; and

WHEREAS, The Southern California Practitioner has been indicted by the United States Postal Department because of the publication of an article dealing with the "sex question," which appeared in the issue of March, 1914.

Be it resolved, That the American Medical Editors' Association express to Dr. George E. Malsbary, editor of the Southern California Practitioner, its confidence and moral support in the pending action.

Be it resolved, That the American Medical Editors' Association assure Dr. Malsbary of its willingness and readiness to afford him any assistance and support within its power according to the Constitution and By-laws.

IRA W. WILE,
C. W. FASSETT,
HENRY R. HARROWER,
Committee.

October 19, 1915.

Reviews and Book Notices

"Theory and Practice of Bloodletting." By Heinrich Stern, M.D., L.L.D., Visiting Physician, St. Marks Hospital; Consulting Physician, Methodist Episcopal (Seney) Hospital; State Hospital at Central Islip; Founder and Editor of the Archives of Diagnosis; Formerly Chairman Section on Pharmacology and Materia Medica American Medical Association; President Manhattan Medical Society; Fellow of the American Urological Association, the American Therapeutic Society, the New York Academy of Medicine, etc. New York. Rebman Co.

This excellent work is an effort to restore a Lost Art in Surgery, as bloodletting was at one time called by the late Prof. S. D. Gross, and as an effort to re-establish a potent remedy in times gone by abused to the extent of creating general disfavor and distrust should be welcomed by every physician who realizes the value of the procedure when used intelligently and scientifically. The number of advocates in the last decade of this remedial measure, under the influence of the writers of notable treatises on the subject has been greatly increased and there can be no doubt that in the early future it will recover all the prestige it enjoyed in the past and will be assigned its proper place in the therapeutic armamentarium. We feel sure the work will take firm hold in the opinion of thoughtful and careful physicians and that it will accomplish its quotum of good in re-establishing an old but certainly efficient remedy.

"The Obstetrical Quiz for Nurses." A Monograph on Obstetrics for the Graduate Nurse in the Lying-in Room. By Hilda Elizabeth Carlson. New York. Rebman Co., 141, 143 and 145 West 36th St.

This little *vade mecum* has been prepared to aid the pupil and the graduate nurse in the science and art of obstetrics. As a guide it will prove invaluable in the lying-in-room, both in the hospital and in practice. Arranged in the form of questions and answers, makes it particularly available, as such a plan necessarily insures directness and succinctness. The little work is complete, dealing comprehensively and

thoroughly with all the details of obstetric nursing and giving as it were a birdseye view of the art of obstetric nursing and yet being full enough to serve as a reliable guide. A feature of the work is a description for improvising every thing required on an emergency case. We feel sure the work will fill a place as a handy reference for the nurse engaged in active duty.

"Transactions of the Tri-State Medical Association of the Carolinas and Virginia." Seventeenth Annual Session. Held at Charleston, S. C., Feb. 17 and 18, 1915. E. C. Register, M.D., Charlotte, N. C., President; Rolfe E. Hughes, M.D., Laurens, S. C., Secretary-Treasurer. Edited for the Association by Rolfe E. Hughes, M.D., Charlotte, N.C. Observer Printing House, 1915.

We are in receipt of this handsome volume of the transactions of this flourishing Tri-state Medical Association and we congratulate the body upon the excellent work accomplished at this meeting, as shown by the numerous valuable papers and spirited discussions. The volume is embellished by a handsome engraving of its handsome president whose address as president of the body is replete with wisdom and eloquence. The practical papers cover a wide field of observation and show a spirit of enthusiasm and study that should characterize such a successful organization. Our best wishes for the continued success of this association.

"An Introduction to Bacteriology for Nurses." By Harry W. Carey, A.B., M.D., Former Assistant Bacteriologist, Brudes Hygienic Laboratory, Albany, N. Y.; Associate in Medicine, Samaritan Hospital and City Bacteriologist, Troy, N. Y. Philadelphia. F. A. Davis Company, Publishers. English Depot. Stanly Phillips, London, 1915.

It is by no means clear as to how much of medicine and medical subjects the modern up-to-date nurse should know. Too much knowledge is prone to render the nurse unfit for her duties in that sometimes she assumes to know more than the medical attendent and then she renders herself obnoxious. To say how much the nurse should know of bacteriology is difficult. That she should know something of the principles of bacteriology is unquestioned. The author has suc-

ceeded admirably in this little book in preparing a handbook of the essentials in an unusually clear and instructive manner. We do not hesitate to recommend the work as of great value to the nurse in the course of her preparation for her arduous life, and as a reference handbook for use in the practice of her calling.

"Progressive Medicine." A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; One Time Clinical Professor of Diseases of Children in the University of Pennsylvania; Member of the Association of American Physicians, Etc. Assisted by Leighton F. Appleman M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia; Opthamologist to the Frederick Douglas Memorial Hospital and to the Burd School; Instructor in Opthalmology, Philadelphia Polyclinic Hospital and College for Graduates in Medicine. Vol. IV. December, 1915. Lea & Febiger. Philadelphia and New York. 1915.

Our thanks are due the publishers for this excellent number of a most valuable quarterly publication. This volume contains a vast amount of useful and up-to-date information on the subjects with which it deals, and the volume should be in the hands of every progressive physician. No similar publication of the present day can begin to vie with this work in the importance of its contributions. The distinguished editors and no less distinguished contributors to each number have done the work assigned to them marvellously well. The contributors to this number are: J. Harold Austin, M.D., Philadelphia; Joseph C. Bloodgood, M.D., Baltimore Md.; Charles W. Bonney, M.D., Philadelphia; Edward H. Goodman, M.D., Philadelphia, and H. R. M. Landis, M.D., Philadelphia. The subjects treated of in this number are as follows: Diseases of the Digestive Tract and Allied Organs; the Liver, Pancreas and Peritoneum; Diseases of the Kidneys; Genito Urinary Diseases; Surgery of the Extremities; Shock; Anesthesia; Infections; Fractures and Dislocations,, and Tumors; Practical Therapeutic Referendum; Index.

Publisher's Department

"PARALDEHYD" possesses many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehyd (see advertisement in this issue) which is an elegant preparation.

A woman physician reports: "I have personally derived great benefit from Tongaline and Lithia Tablets for rheumatism in the right arm and left limb."

Tongaline and Lithia Tablets give such immediate beneficial effects for a condition due to faulty or defective elimination, manifested generally by headache, lassitude, insomnia, etc., and sometimes caused by over-exertion and lack of rest, that we earnestly desire every physician would test them personally. Meilier Drug Co., 11 and Locust Street, St. Louis, Mo.

RENEWED CONFIDENCE IN THE BROMIDE TREATMENT OF EPILEPSY.

In the management of epilepsy the bromides still continue to be the remedy par excellence. In treating many of these unfortunate patients, however, the relief experienced is purchased at the expense of gastric disturbance, unsightly skin eruptions such as acne, and many other discomforts.

Unfortunately many practitioners have felt that the use of a single salt, potassium bromide usually—was preferable in the treatment of epilepsy. As a consequence of this and the all too frequent administration of an impure product,

much harm has been done and the usefulness of the bromide treatment has been repeatedly questioned.

With the extension of knowledge on this important subject, however, a change has taken place and our most successful clinicians have at last awakened to the fact that satisfactory results can be accomplished by the bromides in the management of epilepsy if absolutely pure salts are used, in suitable combination and over a sufficiently long period. Continued study and investigation have substantiated these conclusions beyond all possible question.

Peacock's Bromides—each fluid drachm of which contains fifteen grains of the combined pure and neutral bromides of potassium, sodium, ammonium, calcium and lithium—meet these requirements in every way and can be administered over long and protracted periods, not only with benefits of the most positive and gratifying character, but with surprising freedom from gastric irritation or "bromism." It can be said without question that Peacock's Bromides have given substantial aid in restoring faith and confidence in the bromide treatment of epilepsy by placing it on a practical and effective basis.

A Safe and Reliable Cardiac Tonic.

It is a matter of common observation in the treatment of functional cardiac disorders that all remedies must be avoided that tend to cause reactionary exhaustion or depression following their initial effect. To use a homely but more or less apt illustration, the driver of an unruly high strung horse should not pull it up suddenly or harshly, but always gently and firmly. Therefore, when the heart is irritable or unruly, as it were, it can best be regulated by a remedy that will accomplish this purpose in a gentle yet firm uniform manner. Clinical experience extending over many years has shown that Cactina is such a remedy and can be

relied upon as a most satisfactory tonic in all functional cardias derangements.

At any rate the more one uses Cactina Pillets in the heart cases constantly being met in every-day practice, the more one grows to realize the value of this remedy. Prompt and positive in effect, Cactina has the great advantage of being perfectly safe and free from any tendency to cumulative action. It should, however, be constantly borne in mind that Cactina is not a powerful cardiac stimulant, but on the contrary is a tonic that acts by sustaining and steadying the heart.

Cactina has no contra-indications, and the experience of many thousands of competent physicians have conclusively shown that it can be used under any and all conditions with implicit confidence not only in its freedom from harmful or unpleasant effects, but equally in its capacity to support and strengthen the heart's action and thus help it to do its work.

NASHVILLE JOURNAL

—OF—

MEDICINE and SURGERY

C. S. BRIGGS, A.M., M.D.
EDITOR and PROPRIETOR

Volume 109—January-December, 1915

NASHVILLE, TENNESSEE
1915

TABLE OF CONTENTS—VOLUME CIX.

ORIGINAL COMMUNICATIONS.

A Contribution to the Study of Joint-Bodies Present in Articulations, Otherwise Apparently Normal 49
Anesthesia in Urology 350
American Proctologic Society—Proceedings 392
A Rare Case of Dystocia due to Fetal Ascites 300
Clinical Picture of Puerperal Infection with the Gas Bacillus of E. Fraenkel 160
Compensation for Traumatic Neuroses 385
Gunshot Wounds of the Intestines 9
Management of Diabetes Mellitus 1
Medical Books and Journals 193
Pellagra—Its History, Symptoms, Causes, Treatment, Prevention 489
Salpingitis 530
Some Prominent Symptoms to all Cases of Inebriety and Alcoholism. 99
Surgery in Gall Bladder Disease 241
Some Results Obtained by the New Serum Treatment of Epilepsy 354
Some Anomalous and Morbid Anatomical Findings 433
Some Facts Concerning the Periodicity of Inebriety 481
Treatment of Wounds in General 107
The Wisdom of the Past, a Prophecy of the Future 143
The Twenty-fourth Annual Report of Surgical Operations at the Briggs Private Surgical Infirmary 239, 289

SELECTED ARTICLES.

Emetine and Its Therapeutical Applications 202
Management of Abnormal Obstetrical Cases 13
Piles, with Especial Reference to the Method of Intestinal Invasion as Applied to the Internal Variety 212
Orthopedic Surgery 444
Present-day Conception of the Treatment of Nephritis 66
Some of the Automatic Balances in the Human Body 532
Tubercular Infection Complicating Pregnancy, Parturition and the Puerperal State, with a Consideration of its Bearing on Treatment 166
The Medical Treatment of Peptic Ulcer with Especial Reference to the Lenhartz Treatment 249
The Use and Abuse of Pituitrin in Obstetrics 302
The Non-Operative Treatment of Labor 452
The Diagnosis and Treatment of Mechanical Obstruction of the Bowels 504

EXTRACTS FROM HOME AND FOREIGN JOURNALS.

SURGICAL.

A New Antiseptic 543
A New Styptic 21
Acute Appendicitis and Acute Appendicular Obstruction 21
Anociassociation 117
Acute Appendicitis and Acute Appendicular Obstruction 217
Air Embolism from the Use of Oxygen Injections in Gas Gangrene .. 311
Appendicitis in Typhoid 408
A Few Surgical Don'ts 408
Bone Grafting 124
Boiling Water Injections into the Thyroid Gland for Hyperthyroidism 219
Bone Transplantation ....
Cesarean Section Under Local Anesthesia 116
Cerebral Physiology and Its Services in War 266
Cancer Extracts in the Treatment of Cancer 312
Cataract Due to Electric Shock 310
Cancer Immunity Promised 463
Dependent Intercostal Drainage in Acute Empyema 23
Death Following Intraspinal Injection of Novocaine 118
Disinfection of the Hands and Abdominal Skin Before Operation 545
Dislocation of the Semilunar Bone 264
Exophthalmic Goitre and Its Treatment 120
Early Recognition of Cancer of the Stomach 265
Epididymotomy for Acute Epididymitis 266
Ethyl Chloride as a General Anesthetic 545
Experimental Contribution to the Subject of Cholelithiasis 362
Experience with Coagulen 364
Extraction of Bullets from the Bladder by the Natural Channels 542
Foreign Bodies in the Appendix 76
Fixation Abscesses 364
Gallstones 406
Heat During Anesthesia 24
Iodized Carbon in the Treatment of Infected Wounds 221
Ionization Treatment of Septic Wounds 361
Internal Aspects of Prostatic Suppuration 364
Intestinal Obstruction 409
Large Hair Ball 77
Loose Bodies in Joint 118
Magnesium Sulphate in Tetanus 122
Nephropexy 464
Open Puncture of the Pleura 405
Operations on Cysts of Breast 407
Phlegmons around the Ear in Scarlet Fever 178

Prolapse of the Rectum..... 76
Prophylaxis of Joint Conditions in Childhood..... 544
Pseudoappendicitis in a Physician..... 179
Relation of Movable Kidney to Trauma..... 121
Rupture of the Intestines in Children..... 178
Rupture of Heart in Child..... ...
Rupture of the Lung Without Fracture of the Ribs..... 220
Rigidity of the Right External Oblique in Appendicitis..... 313
Strangulated Hernia—Removal of Appendix from Hernial Sac..... 544
Suprapublic Cystotomy 78
Surgical Treatment of Acute Pancreatitis..... 118
Scrotal Hernia Containing an Inflamed Appendix..... 262
Sign of Appendicitis in the Male..... 408
Threadworms and Appendicitis..... 21
The Place of the X-Ray in Therapeutics..... 25
Treatment of Whitlow..... 117
The Practical Application of the Luetin Test..... 122
Treatment of Gangrenous Wounds with Artificial Gastric Juice.... 123
Transplantation of a Testicle from the Dead to the Living Body..... 125
The Prevention of Discomfort after Operations..... 175
Tetanus Therapy 177
Treatment of Infected Wounds..... 217
Treatment of Manifest Tetanus..... 262
The Inlay Bone Graft versus Lane Plates in the Treatment of Fractures 263
Treatment of Ganglion..... 265
The Antiseptics of War..... 267
Treatment of Erysipelas with Carbolic Acid and Alcohol..... 308
Treatment of Chancroids..... 309
The Use of Pituitrin as a Coagulant in the Surgery of the Nose and Throat 314
The Cure of Goitre by the Injection of Boiling Water..... 362
The Tonsil from a Surgical Viewpoint..... 407
The Psychic Factor in Surgery..... 461
Transverse Incision in Appendicitis..... 462
Two Cases of Swallowed False Dentures Treated with Apomorphine.. 543
Use of Omentum in Abdominal Surgery..... 23

MEDICAL.

Autoserotheraphy in Pleurisy 26
Antidote for Corrosive Sublimate Poisoning..... 27
A Study of 226 cases of Enuresis..... 30
Adrenalin in the Treatment of Cholera 33
A Valuable Diagnostic and Prognostic Sign in Chorea in Children.... 81

A New Test for Beginning Peritonitis in Children..... 180
A Note on the Use of Liquid Paraffin in Infants..... 368
A Wandering Horsehair..... 371
A New Symptom for Early Diagnosis of Pulmonary Tuberculosis.... 412
Alcohol not an Antidote for Carbolic Acid..... 272
Calcium Chloride in the Treatment of Tics..... 30
Chronic Hemolytic Jaundice..... 365
Cocoanut Oil in Malaria..... 370
Development in Scarlatinal Therapy Uræmia..... 275
Diabetes in the Elderly..... 180
Differential Signs of Hysterical and Organic Affections of the Nervous System 548
Diphtheria Toxin and Blood Pressure..... 127
Diseases of the Circulatory Organs in Warfare..... 82
Don'ts for Young Doctors..... 84
Dry Vegtable Cure in Diabetes Mellitus..... 369
Differential Diagnosis of Diphtheria..... 412
Empyema 225
Emetine in Amebic Dysentery..... 411
Facts about Rattlesnake Venom..... 319
Further Use for Emetine..... 467
Gasoline as a Therapeutic Agent..... 27
Home Treatment of Sciatica..... 318
Hemoptysis due to High Tension..... 410
Internal Secretions and Dental Caries, with Special Reference to Thyroid Deficiency 25
Inflammation of the Parotid Gland in Typhoid Fever..... 222
Insect Carriers of Disease..... 268
Internal Use of Red Iodide of Mercury in Enlarged Malarial Spleen.. 272
Indicanemia 466
Kisses 369
Mental and Nervous Disorders Associated with Pellagra..... 126
Myelitis in Child..... 317
Pure Paraffin Oil in Treatment of Ulcers..... 226
Purpura 316
Pepsin in Gastric Therapy..... 414
Present Status of Diseases of the Bible Apparatus..... 465
Pancreatitis 31
Relationship of Veronal, Sulphonal and Trional..... 226
Rapid Relief in Acute Lumbago..... 270
Rheumatic Fever and Rheumatoid Arthritis..... 319
Relation of Calcium to Delayed Coagulation of Blood..... 366
Secondary Affections having their Primary Origin in the Oral Cacity.. 288
Signs of a Predisposition to Diabetes..... 79

Some Virtues of Pilocarpine 316
Spartein Sulphate 546
The Treatment of Boils 29
The Harrison Law as applied to Physicians 80
The Occurrence of Miliary Tuberculosis of the Liver in the Course of Pulmonary Tuberculosis 546
The Use of Horse Serum for the Prevention of Hemorrhage 83
The Use of Pituitary Extract in Obstetric Practice 83
Tuberculosis of the Genito-Urinary Tract 125
The Use of Pituitrin on Respiration 128
The Hen as a Possible Typhoid Carrier 128
The Use of Petroleum in the Treatment of Constipation 130
The Cause of Recurrent Malaria 130
The Roentgen Ray and Pneumonia 181
The Widal Test and Antityphoid Inoculation 182
The Infant's Ability to Digest Starch 182
Treatment of Pyorrhea by Emetine Hydrochloride 223
Treatment of Diabetes with Casein and Cream 224
Treatment of Diabetes with Diabeterserine 267
Typhus Fever Germ Isolated 269
Treatment of Infantile Paralysis 270
The Action of Benzol and Its Homologues 320
The Specific Treatment of Hay Fever 367
The Modern Dosage of Diphtheria Antitoxin 370
Treatment of Typhoid 414
The Treatment of Pernicious Anemia with Neosalvarsan 415
The Treatment of Tuberculosis with Compression 465
Vomiting 129
Wart Cures 547

OBSTETRICAL.

A Placenta in the Abdomen for a Long Time After Extrauterine Pregnancy 85
An Unusual Case of Vicarious Menstruation 86
Arteriosclerosis and Uterine Hemorrhage 278
Abortion and Labor by Placental Extracts 422
Against Ligature of the Umbilical Cord 468
Bladder Irrigation 324
Baby Without Hands or Feet 416
Care Required in Obstetrical Cases 553
Citrite Salts in Congestive Dysmenorrhea 132
Congenital Cyanosis without Auscultatory Signs 230
Chorea in the Pregnant 278
Connection Between Gynecologic Affections and Insanity 417

Dysmenorrhea 134, 420, 134
Extraperitoneal Caesarian Section..... 85
Exclusive Radiotherapy of Uterine Cancer..... 469
Intestinal Toxæmia of the New Born..... 469
Mammary Fissurea..... 418
New Method of Round Ligament Fixation..... 35
Non- Ligation of the Umbilical Cord..... 183
Nitous Oxide Gas Analgesia in Obstetrics..... 321
Normal Period of Gestation..... 322
Necrosis of Kidney in Pregnancy..... 423
Prophylaxis of Puerperal Convulsions..... 276, 184
Physiology and Pharmacology of the Excised Human Uterus..... 326
Repeated Pregnancy in the Same Tube..... 185
Retention of Remnants of Placenta and Puerperal Fever..... 227
Sensitized Bacilli in Uterine Abcess..... 133
Scopolamine—Morphine in Labor.....277, 326
Salvarsan in Pregnancy..... 324
Subcutaneous Symphysiotomy..... 372
Sodium Citrate in Dysmenorrhea..... 416
Sugar Solution in Treatment of Leucorrhea..... 26
The X-Ray Treatment of Myoma..... 34
The Cholesterin in the Blood During Pregnancy..... 131
The Pregnancy Clinic and the Midwife. A Comparison..... 550
The Management of Infants at the Breast..... 552
Twilight Sleep 132, 551
The Wet Nurse in Hospital Practice..... 134
The Use of Scopolamine in Labor..... 135
The Clinical Significance of Amenorrhea in the Diagnosis of Tubal Pregnancy 184
The Management of Hemorrhage Postpartum..... 228
Treatment of Placenta Praevia..... 229
Transfusion in the Treatment of Hemorrhagea Neonatorum..... 277
The Value of Condensed Milk as a Substitute for Mother's Milk..... 279
Twilight Sleep..... 280
The Question of Legalizing Abortion in Cases of Military Rape..... 322
Treatment of Puerperal Eclampsia..... 322
Tetanus Neonatorum 325
The Effect of Pubiotomy on the Course of Labor..... 373
Treatment of Inflammation of the Uterine Adnexa..... 374
Twilight Sleep 375
The Management of the Placental Stage of Labor with Special Reference to Retained and Adherent Placenta..... 419
The Effect of Repeated Injections of Pituitrin on Milk Secretion..... 420

Uterine Hemorrhages in Young Girls..... 33
Visceral Ptosis 37

EDITORIAL 38, 87, 137, 187, 232, 282, 329, 377, 424, 471, 511, 555

OBITUARY.....93, 334, 427

REVIEWS AND BOOK NOTICES.....46, 95, 190, 238, 335, 429, 522, 563

PUBLISHER'S DEPARTMENT
.....48, 96, 143, 191, 240, 288, 336, 383, 431, 478, 524, 566

ELEGANT
PHARMACEUTICAL SPECIALTIES

Attention is called to the EXCELLENCE and VALUABLE THERAPEUTIC PROPERTIES of these PREPARATIONS

Robinson's Hypophosphites

NUTRITIVE, TONIC, ALTERATIVE.

A STANDARD REMEDY in the treatment of Pulmonary Phthisis, Bronchitis, Scrofulous Taint, General Debility, etc. Stimulates Digestion, promotes Assimilation.

℞ Each fluidounce contains:

Hypophosphites	Soda - - - -	2	grains
"	Lime - - - -	1½	"
"	Iron - - - -	1½	"
"	Quinine - -	¼	"
"	Manganese -	1½	"
"	Strychnine -	1-16	"

DOSE—One to four fluidrachms.

6 oz. Bottles, 50 Cents.
Pint Bottles, $1.00.

This preparation does not precipitate—retains all the salts in perfect solution.

Robinson's LIME JUICE and PEPSIN

Pure Concentrated Pepsin combined with Pure Lime Juice.

An exceedingly valuable Combination in cases of Dyspepsia, Indigestion, Biliousness, Heartburn and Mal-Assimilation.

APERIENT AND CHOLAGOGUE.

Impaired Digestion is the consequence of a sedentary life, coupled with nervous and mental strain.

Reliable Pepsin is one of the best DIGESTIVE agents known. **Pure Lime Juice** with its APERIENT and CHOLAGOGUE characteristics with the Pepsin furnishes a compatible and most efficient combination as a remedy for the disorders named.

Robinson's Lime Juice and Pepsin is PALATABLE and GRATEFUL to the taste.

DOSE—Adult, dessertspoonful to tablespoonful, after eating. Children one-half to one teaspoonful, according to age.

PRICE, 6 oz. Bottles, 50 Cents.
16 oz. Bottles, $1.00.

SALOFORM

(Flexner)

Saloform is a definite Chemical Compound the component parts of which are **Hexamethylene, Tetramine, Salicylic Acid** and Lythia.

The properties of **Saloform** are those of Uric Acid Solvent and of a Genito-Urinary Antiseptic.

As a Uric Acid Solvent it is indicated in **Rheumatism, Gout, in Phosphaturia, in Gravel,** and in **Renal Colic**

As a Genito-Urinary Antiseptic it limits suppuration anywhere along the Urinary Tract, from the Kidneys down to the orifice of the Urethera.

It has been used with most excellent results in **Pyelitis, and Pyonephrosis,** in **Cystitis,** and in **Gonorrheal and Non-Gonorrheal Urethritis**

SALOFORM (Flexner) is obtainable in powder, tablet or elixir.

Powder in 1-oz. vials, dose 10 grains, 4 times daily (under physicians prescriptions), per 100 $1.25.

Tablets, 5 grains, to a bottle, dose, 2 tablets 4 times daily (under physicians prescriptions); per 100, $1.25.

Elixir, in 16 ounce bottles, dose, teasponful after each meal and at bedtime (under physicians' prescriptions), per bottle $2.00.

Physicians who have used Saloform are enthusiastic in their praises of its merits.

Flexner's Solution of Albuminate of Iron

(Liquor Ferri Albuminatis—Flexner)

Albuminate of Iron is a definite chemical compound of albumen and Iron. In the manufacture of the preparations of this iron salt, we use fresh egg albumen only. Albuminate of Iron is the organ ic compound present in the red corpuscles of the blood. **It does not disturb digestion, neither does it constipate.** Contains in each teaspoonful one grain of the Iron salt, and itis perfectly stable and bland. Clinical experience has demonstrated its superiority as a chalybeate.

PINT BOTTLES, $1.00

Please prescribe ORIGINAL bottles, OUR label.

WE NOW MAKE FLEXNER'S

Syrup Albuminate of Iron Comp. { **Pints, $1.00**

Solution Albuminate Iron and Strychnine, Syrup Albuminate Iron with Quinine and Strychnine { **Half Pints, $1.00**

Please specify **ROBINSON'S** Original Bottles. For sale by Druggists.

ROBINSON-PETTET CO.,

(INCORPORATED)

Manufacturing Pharmacists LOUISVILLE, KY

Founded 1842. Incorporated 1890

☞ **Pamphlets gratis** to Practitioners by Mail upon request

SAND & SUMPTER DRUG CO.

PHARMACISTS

CORNER UNION STREET AND FIFTH AVENUE, NORTH

Prescriptions Carefully Compounded
Surgical Dressing Supplies

DEPOSITORY FOR

E. R. SQUIBB & SON'S PREPARATIONS

OUT OF TOWN ORDERS PROMPTLY ATTENDED TO

Written Endorsements From More Than 8000 Physicians.

VIN MARIANI INTRODUCED NEARLY HALF A CENTURY AGO

"The preparation which made Coca known as a remedy!"

Priority, Facilities and Processes of Manufacture Maintain Mariana Coca Preparations Inimitable.

AVOID "COCA WINES" Extemporaneously made with **Cheap Wines and Cocaine**
Subtitutes harm patients and betray confidence in the unique properties of Coca.

VIN MARIANI

Represents TRUE COCA with a Sound Nutritous FRENCH WINE.

An Adjutant to all other Remedies in

Convalescence—Wasting Diseases—Neurasthenia

And Allied Conditions
from any cause.

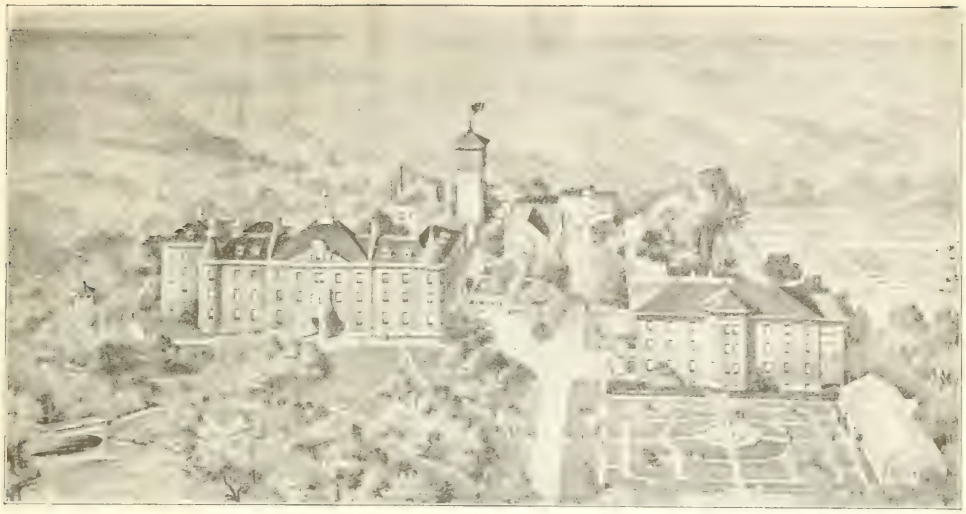
THE COCA LEAF
A PERIODICAL ADVOCATING
THE RATIONAL USES OF COCA
MAILED FREE
TO PHYSICIANS ON REQUEST

Inquiries from Physicians Receive Ethical Considerations.

MARIANI & CO.,

52 West 15th Street, New York

PARIS LONDON, BERLIN. MONTREAL, Laboratories: Neuilly Sur-Seine, FRANCE.



THE CINCINNATI SANITARIUM

FOR MENTAL AND NERVOUS DISEASES

A strictly modern hospital fully equipped for the scientific treatment of all nervous and mental affections.

Situation retired and accessible. For details write for descriptive pamphlet.

F. W. Langdon, M.D., Medical Director
B. A. Williams, M.D., Resident Physician
Emerson A. North, M.D., Resident Physician
Georgia E. Finley, M.D., Medical Matron
H. P. Collins, Business Manager

BOX No. 4 COLLEGE HILL CINCINNATI, OHIO

Iodinized Emulsion
(SCOTT)

THE IDEAL INTESTINAL ANTISEPTIC.
Indicated in Typhoid and other slow fevers, Dysentery, Chronic Diarrhœa and gastro-intestinal troubles.

Creosotonic
(SCOTT)

THE IDEAL SYSTEMIC ANTISEPTIC.
Invaluable in Tuberculosis, Bronchitis, Pneumonia, Asthma, Catarrh and as a tonic after all exhausting diseases.

Samples and Literature free on request.
The Dawson Pharmacal Company, Incorporated. Dawson Springs, Kentucky.

NEW ORLEANS POLYCLINIC

Post Graduate School of Medicine Tulane University of Louisiana. Twenty-ninth Annual Session opens September 27, 1915, and closes June 3, 1916

Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory and cadaveric work. For further information, address:

CHAS. CHASSAIGNAC, M. D., Dean.
NEW ORLEANS POLYCLINIC
Postoffice Drawer 770 **NEW ORLEANS, LA.**

Tulane also offers highest class education leading to degrees in Medicine, Pharmacy, Dentistry, Hygiene and Tropical Medicine

The Nashville Journal of Medicine and Surgery

This standard publication has just entered upon its 108TH *volume. The attention of the medical profession is called to improved appearance, and to the better character of its contents. : : : : :*

Physicians who desire to read a live, PROGRESSIVE MEDICAL JOURNAL, will do well to avail themselves of the low subscription price at which this excellent periodcal is offered.

A Handsome Premium to New Subscribers

A CLINICAL THERMOMETER FREE

To all new subscribers who will send $1.00 for one years subscription to the Journal from date, we will send a reliable clinical thermometer in nickel case, with pin and chain attached. This offer good as long as the supply lasts. Fill out coupon attached and mail at once, so as to get advantage of this offer.

Find enclosed $1.00 for which send the Journal and Thermometer to

Dr. _____

Town _____

County _____

State _____

Direct from the Still | Purified | Purified and Aged

No. 1 No. 2 No. 3

These Three Bottles, Doctor, Are For You

No. 1 Contains Cascade Whisky Just From The Still—
No. 2 Contains Cascade Whisky PURIFIED—
No. 3 Contains Cascade Whisky *Just As It Comes To You*

Purified as no other Whisky on the Market and Reaching the Consumer the Absolute Acme of Quality and Flavor.

The Samples, are Designed, Doctor, to show you the Difference Between Cascade and Other Brands

The Final Purifying Process Makes

CASCADE STAND OUT AS THE LEADING MEDICINAL WHISKY

A Post Card Brings Them To You

GEO. A. DICKEL & CO., *Distillers*, Nashville, Tenn.

PRUNOIDS

A remarkably effective remedy for relieving and correcting

CHRONIC CONSTIPATION

Easy and pleasant to take, Prunoids do their work thoroughly and completely without griping or after-constipation. A physiologic evacuant of especial utility in intestinal stasis and associated conditions.

CACTINA PILLETS
Regulate, support and strengthen the heart.
SENG
A trustworthy gastric tonic.

SULTAN DRUG CO., St. Louis, Mo.

An Effective Alterative

rapidly readjusts bodily processes by correcting perverted functions and re-establishing normal metabolic activity. It is the capacity of

IODIA

in this direction—its well known ability to restore a proper balance between tissue waste and tissue repair that makes it of such pronounced therapeutic value in RHEUMATISM, GOUT, the SCROFULOUS DIATHESIS, LATE and HEREDITARY SYPHILIS, CHRONIC SKIN DISEASES, GOITRE and CHRONIC DISEASES IN GENERAL. For many years IODIA has been the standard tonic alterative, and the uniformly satisfactory results careful discriminating physicians have obtained in treating the strumuous disorders of all ages, have proven beyond all doubt that this eligible remedy is unsurpassed in its field of activity.

BATTLE & CO.

PARIS ST. LOUIS LONDON

Obstetrical Charts in colors, sent on receipt of 25c postage paid. Ready for delivery

6 LIGHTNING SHOTS

That's what you get if you use the Stevens Repeating Shotgun No. 520.

The repeating action is so simple that you can work it with only your thumb and finger.

No matter how fast you pump this gun you cannot possibly bank or clog it.

The empty and the loaded shells travel by **two separate routes.** There is no chance for them to meet and jam.

If your dealer hasn't it, we will send, express prepaid, on receipt of List Price, $27.00.

Points for the Sharpshooter, Hunter and Trapshooter

Write us and tell us what kind of shooting you are most interested in and we will write a letter of advice with many valuable pointers for the Hunter and Sharpshooter. We will give you short cuts to expert marksmanship, which will not only make you a better shot than you already are but will cut down your ammunition bills as well.

J. STEVENS ARMS & TOOL CO.
DEPT. S.
The Factory of Precision
Chicopee Falls, Mass.

LIST PRICE $27

McCALL PATTERNS 10 AND 15 NONE HIGHER

McCALL'S MAGAZINE 50 A YEAR INCLUDING A FREE PATTERN

McCALL PATTERNS
Celebrated for style, perfect fit, simplicity and reliability nearly 40 years. Sold in nearly every city and town in the United States and Canada, or by mail direct. More sold than any other make. Send for free catalogue.

McCALL'S MAGAZINE
More subscribers than any other fashion magazine—million a month. Invaluable. Latest styles, patterns, dressmaking, millinery, plain sewing, fancy needlework, hairdressing, etiquette, good stories, etc. Only 50 cents a year (worth double), including a free pattern. Subscribe today, or send for sample copy.

WONDERFUL INDUCEMENTS
to Agents. Postal brings premium catalogue and new cash prize offers. Address

THE McCALL CO., 238 to 248 W. 37th St., NEW YORK

Cerebral Sedation

is not infrequently the first and most essential detail of scientific therapeusis, and on its prompt, effective and safe accomplishment a patient's welfare is often wholly dependent. With so much therefore at stake, the selection of the hypnotic or sedative agent to be used is invariably a matter of more than ordinary importance. The preference usually given by painstaking practitioners to

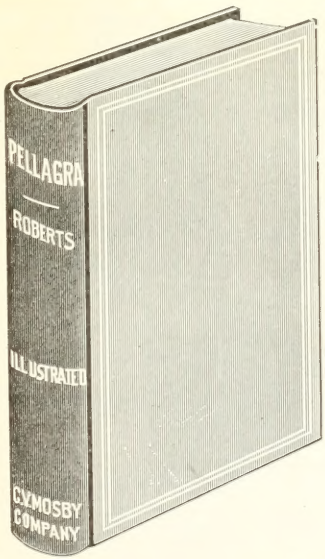
BROMIDIA

is the logical result of its well established efficacy in reducing hyper-activity of the cerebral circulation, controlling mental excitation and producing sleep that is normal, restful and recuperative.

The **exceptional quality of its ingredients, its absolute purity, constant uniformity** and **non-secrecy** are details that have helped Bromidia to hold its widely recognized position during the past thirty years, as **the safest and most dependable hypnotic** at the command of the medical profession.

BATTLE & CO.
ST. LOUIS
PARIS LONDON

The Latest Word on Pellagra



PELLAGRA

ETIOLOGY, PATHOLOGY, DIAGONOSIS, TREATMENT

By STEWART R. ROBERTS, A. B., M. Sc., M. D.

Associate Professor of Principles and Practice of Medicine, Atlanta College of Physicians and Surgeons; Neurologist to Wesley Memorial Hospital, Atlanta, Georgia.

250 Royal Octavo Pages-Illustrated-Price, $2.50

No other disease is so dreaded today as Pellagra. The meager knowledge obtainable about its etiology and the uncertain methods of treatmenl hitherto prevailing have caused it to be feared by all who are familiar with its ravages. For the first time in its history some tangible facts have been worked out along the line of etiology, and rational methods of treatment have been determined. Doctor Roberts has studied this disease in all its phases in America, and at the present time is completing personal observations of the disease in its natural habitat, Italy, working out the mooted points of etiology and pathology with the experts of Europe. Personal investigations have been conducted in the laboratory and in the homes of the stricken victims. It is needless to say that this monograph will be the latest word on this subject and will bear the stamp of authority.

This Book will be Ready for Distribution January 1, 1912

C. V. MOSBY MEDICAL BOOK AND PUBLISHING COMPANY
METROPOLITAN BUILDING, Grand Avenue and Olive Street ST. LOUIS. U. S. A.

For Prolonged Bromide Treatment

the best and most satisfactory preparation is

PEACOCK'S BROMIDES

Made from the purest salts, and combined with a care that assures constant, unvarying uniformity, the use of this dependable product is attended not only by maximum benefit but minimum tendencies to gastric disturbance or "bromism."

Employed with conspicuous success in **congestive** and **convulsive conditions**, the **reflex neuroses**, and whenever a reliable **antispasmodic**, **anodyne**, and **sedative** is required.

CHIONIA

Affords hepatic stimulation without purgation—a true cholagogue.

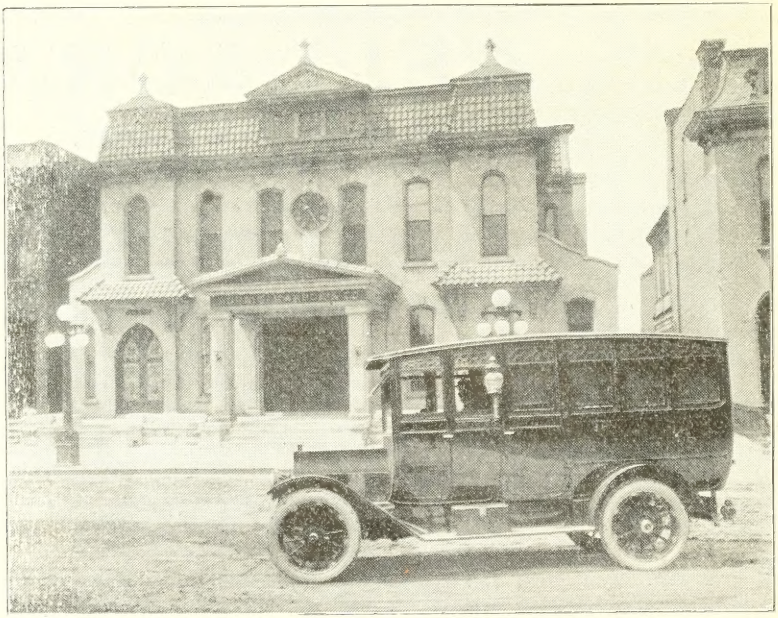
PEACOCK CHEMICAL CO., St. Louis, Mo.

Dorris, Karsch & Co.

FUNERAL DIRECTORS

AUTO-AMBULANCE SERVICE

TELEPHONE MAIN 479

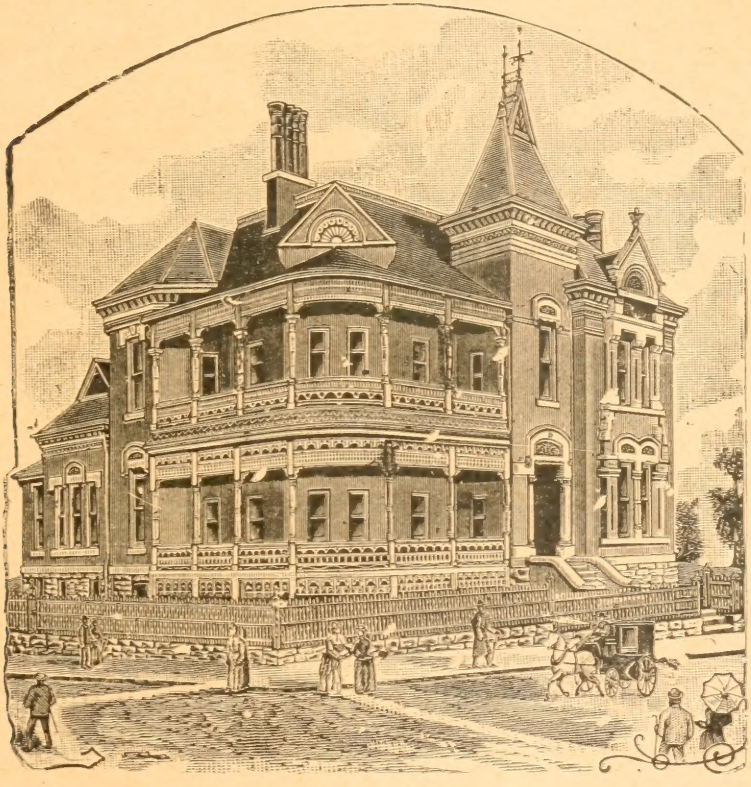


TELEPHONE MAIN 1369

CORNER OF COMMERCE STREET AND NINTH AVENUE, NORTH, NASHVILLE, TENNESSEE

The Briggs Infirmary

FOR THE TREATMENT OF SURGICAL DISEASES



THIS INSTITUTION is located in the central part of the city, easily accessible by several lines of electric cars. Separate buildings for male and female patients, rooms well ventilated handsomely furnished and supplied with all the conveniences of modern hospital establishments. Excellent cuisine and competent trained nurses. The operating rooms are equipped with all the requisites of modern operative surgery. Rates of board reasonable. Twenty-Third season opened September 10, 1914. For further information address—

CHARLES S. BRIGGS, A. M., M. D.,

Or SAMUEL S. BRIGGS, M. D.,

Corner Summer and Union Sts. NASHVILLE, TENNESSEE

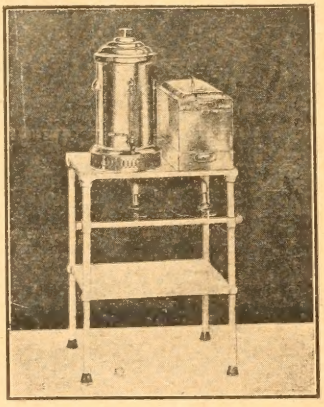
SYRUPUS HYPOPHOSPHITUM FELLOWS

One of the most efficient, most complete, and best all-round Tonics in the Materia Medica!

FOR FOUR AND A HALF DECADES ITS REPUTATION HAS BEEN CONSTANTLY INCREASING!

Reject < Cheap and Inefficient Substitutes
Preparations "Just as Good"

THE FELLOWS MEDICAL MANFG. CO. LTD. 26 CHRISTOPHER ST. NEW YORK



EVERYTHING FOR SICKROOMS

153 Fourth Avenue, North
NASHVILLE, TENN.

WRITE FOR PRICES

Theo. Tafel Co.

W. E. ENGLERT, Prop.

SURGICAL INSTRUMENTS, HOSPITAL SUPPLIES, SUPPORTERS AND TRUSSES